THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXIX. NEW YORK, SATURDAY, NOVEMBER 7, 1896. No. 19.

ORIGINAL ARTICLES.

NOTES ON THE MANAGEMENT OF INCURABLE CASES OF CANCER.[1]

BY DANIEL LEWIS, M.D.,
OF NEW YORK;
SURGEON TO THE NEW YORK SKIN AND CANCER HOSPITAL.

THERE is no longer any ground for discussing the question of the curability of cancer. The statistics of numerous surgeons not only place on record many permanent cures, but also conclusively show that improved methods of treatment and perfected surgical procedures are slowly, but steadily increasing the percentage of patients who have remained well beyond the three-year period, which has been adopted as the time-limit beyond which recurrence of the disease rarely happens. In the history of nearly all cases, there is doubtless a period which Mr. Jonathan Hutchinson has characterized as the precancerous stage of cancer, when acuteness of diagnosis and immediate removal of the suspected neoplasm would effect a cure. This stage, however, is usually passed before the patient applies for treatment at our surgical clinics, as the records of all hospitals clearly demonstrate. This leads me to say that the family physician is often charged, perhaps unjustly, with advising delay in the early history of these cases, and thus allaying present anxiety at the expense of the prospects of future successful treatment. If I were asked to formulate in a single sentence the most important factor in the effort to reduce mortality from cancer, I should reply: A thorough study and appreciation of the predisposing and exciting causes of the disease, by the family physician.

When the diagnosis shall be made in the very early stage and treatment shall be at once prompt and radical, the number of incurable cases, of which we are to speak, will rapidly decrease, and the proportional decrease of mortality will mark a new era in the surgery of malignant diseases.

At present we are called upon to attend many patients where every method of treatment has been a failure and nothing remains but such palliative measures as are at our command for smoothing the downward road to the inevitably fatal termination.

[1] Read before the Medical Society of the County of New York.

The resources which may be employed to advantage in these hopeless cases vary according to the site of the disease and, in some degree, to the temperament of the patient.

The remedies indicated may be classified, for our present purpose, as follows: (1) Psychological influences; (2) medicinal agents; (3) surgical operation; (4) local applications, dressings, antiseptics, etc.; (5) anodynes; (6) inoculation with various toxins.

The influence of the mind upon the course of disease is very marked in many other conditions, and we have reason to believe, with Dr. Herbert L. Snow of the London Cancer Hospital, that mental anxiety is sometimes even an etiological factor in cancer. You will all recall the fear which many a neurotic patient experiences because of the supposed hereditary character of cancer. This, the surgeon can confidently assure the sufferer, is no longer believed to be an important question—that the preponderance of clinical testimony is against the old theory that heredity has any influence whatever upon the origin and course of such diseases.

The exact knowledge of the nature of the disease should be withheld from the patient as far as possible, and the use of the term "cancer" studiously avoided. You may designate the case a "malignant growth," a "tumor," a "sarcoma," or anything else except the dreaded word "cancer," without destroying the patient's hope of relief or cure. So powerful is the depressing influence of this fear of cancer that it has been many years since I have used the term in the presence of a patient. When the question is asked, "Is this a cancer?" a truthful description can be given of the nature of the disease without the use of this dreaded designation. We are often led to prescribe tonics in such cases, but hope is the very best one, and will effectually insure a tranquil nervous system, with all which that condition implies, and, in my judgment, we should never unnecessarily deprive the patient of its influence.

Medicinal agents have been brought forward from time to time, sanctioned by authorities, which cannot be reasonably ignored. While many of these are chiefly useful in their influence upon the mental condition of the patient, some of them decidedly influence the course of the disease.

Inoperable cancer of the breast, for example, has, in some cases, been arrested in its growth and infiltration of adjacent tissues diminished by hypodermic injections of 20 drops of a ten-per-cent. solution of the chlorid of anilin in dilute alcohol, repeated every second or third day. This treatment may be continued for several weeks or months. The usual antiseptic precautions are to be observed in the preparation of the skin at the point of injection, and of the hypodermic syringe. My attention was first called to this remedy by Dr. C. E. Bruce, who had secured marked improvement therefrom in an inoperable epithelioma of the tongue. I have elsewhere reported a case of recurrent disease of the right breast, in which a large, painful tumor, which was firmly attached to the chest-wall, became almost painless, reduced in size, and quite movable upon the thoracic wall, and its removal by operation became possible, and was advised. The patient, however, elected to continue the treatment which had induced such changes in the growth, and she left the hospital, and the subsequent history is unknown. I have no doubt, however, that the influence of the anilin was not permanent and, after a large trial of the plan in cases of cancerous breast, we can say that as a palliative measure only it is useful, and that it should not be neglected where ulceration has not yet occurred.

In an extensive cancerous disease of the tongue, marked improvement resulted from these injections, and the patient's life was prolonged many months, with much relief of pain, until near the termination of the history. There is never any serious reaction following these injections, and no local irritation at the point of puncture.

Methylene blue, administered in pills (gr. ii–v), in combination with arsenic (gr. $\frac{1}{60}$), has been recommended for cancer of internal organs, and improvement sometimes follows its use, especially when the disease is in some portion of the alimentary tract. This remedy causes no gastric disturbance, and may be given every six hours for an indefinite period. I have thoroughly tested its efficacy in a single case, in which the disease proved to be in the pancreas. For a time there was a mitigation of symptoms. In cancer of the stomach, its action is probably more pronounced, owing to the local effect of the drug.

In a paper read before the Medical Society of the State of New York in 1890, I described the method of using Chian turpentine in cancer as recommended by Professor Clay of Birmingham, and expressed the opinion that it might prove useful in some cases of uterine cancer. Experiments with it have been continued, and it is with regret that I must declare that no such results as Clay published have ever been observed in my practice. Its employment has been abandoned in the New York Skin and Cancer Hospital, and also in the London Cancer Hospital, where Mr. Jennings accorded it a thorough trial.

Many other remedies have been recommended by various writers, and it is not unreasonable to hope that new ones will be brought forward which will be worthy of trial in these inoperable cases, and even a specific for cancer may finally be discovered, as Sir James Paget has predicted. The preliminary tests of all such remedies should be made only upon inoperable cases, as we should never for a moment trust a patient's fate to such means, to the exclusion of operative procedures, when it is possible to accomplish complete removal of the neoplasm.

Surgical operation, in hopeless cases, may be indicated in two conditions: (1) To save important organs, and (2) to relieve the patient of a mass of diseased tissue. In disease of the orbit, for example, the unaffected eye may be saved for years by persistently removing the infiltrated border of the ulcer which is nearest to the healthy side. One of my patients now has perfect vision in the right eye, which would have been lost years ago had we neglected this precautionary operation.

The partial removal of a cancerous uterus by the curette results in a lessening of hemorrhage and fetid discharges, which not only disturb the patient, but are a prolific source of annoyance to the attendants. The same course may properly be adopted with a cancerous tongue, or the external portion of rectal cancer, or any portion of the body in which the personal comfort of the patient may be thereby increased. I have even removed incurable tumors of the breast for the same reason, and secured a decided relief of distressing symptoms by the operation. These exceptional instances, however, do not invalidate the rule that operations for cancer should never be attempted unless we are reasonably certain that a thoroughly complete removal of the tumor may be effected.

Before leaving the question of surgical operation, a few words may be added concerning the management of irremovable cancer of the rectum. The most troublesome symptoms in these cases are due to obstruction, and when the passage of rectal bougies fails to afford relief, the somewhat formidable operation of colotomy is performed for that purpose. It often happens that the strictured portion can be reached by the finger, and if so,

it should be used for dilatation, instead of rubber instruments of any kind. The surgeon may so regulate the direction and extent of the force employed by the finger as to avoid perforation or other dangerous laceration. This procedure should not be entrusted to the nurse, but should be repeated by the surgeon every few days, according to the necessities of each individual patient. In this way I have avoided colotomy in nearly every case, and the patient has remained comparatively free from the symptoms dependent upon stricture.

There are several suggestions worthy of mention under the head of local applications, antiseptic lotions, and deodorants. Three years ago, Dr. Henry Bahnson of Salem, N. C., called my attention to antipyrin as a dressing for cancerous ulcers, and it is an admirable application. It is dusted upon the ulcer at each dressing, and the surface is then covered with absorbent gauze or cotton in the usual manner. Its employment prevents offensive odors, and decidedly improves the general appearance of the ulcer. The only objection to it is its expensiveness, and it has since been demonstrated that antifebrin and some other coal-tar products are equally satisfactory.

Protonuclein has recently been recommended as a possible cure for cancer. A careful test of its effects when employed externally has thus far proven its value as a stimulating antiseptic application. It is too early to determine the exact place this preparation deserves in the treatment of cancer, or whether it is in any sense a remedy, but as a local application the powder is a valuable addition to the list, and is to be classed with aristol and iodoform for that purpose. I may here state that the use of iodoform in private practice has become an inexcusable offence since these new remedies have been introduced, and there is no further necessity for a surgeon to render himself a nuisance to everybody he meets by dressing a case with iodoform-gauze or -powder.

If an ointment-dressing be indicated, aristol, with vaselin of suitable strength, is among the best (gr. xx to ʒ ii to ʒ i). This or any other ointment-dressing will be more grateful to the patient if spread upon a thick layer of absorbent cotton, instead of lint or gauze. The cotton is more easily adapted to every inequality of the ulcerated surface, and, from its lightness and tendency to cling to the surface when moistened, will seldom be displaced. The employment of fuchsin and other anilin preparations is not desirable, because of the staining of the patient's clothing and bedding, while the results obtained are no more satisfactory than with other dressings.

In cancer of the uterus, a deodorizing lotion is of the first importance, and one containing eucalyptus is preferable to a plain antiseptic solution. The vagina may also be loosely packed with cotton tampons, saturated with a solution (five-per-cent.) of aristol in albolene or benzoinol, a dressing which the nurse can readily renew. A vulvar pad of finely prepared oakum is both absorbent, a good deodorant, and cheaper than cotton, and is equally useful in advanced cases of cancer of the rectum.

No mention would be made of the use of opiates in incurable cases, were it not for the fact that the question is often asked regarding the extent to which they should be administered. The reply to that query should be: Give enough opium or morphin (or other anodyne) to insure the patient's comfort, if possible, without danger from the drug itself, the frequency of the dose to be determined by the patient. Such cases as we are considering have passed beyond the point where the danger of the morphin-habit should be considered. Suppositories, when the disease affects pelvic organs, morphin (or cocain) locally when desirable, hypodermic injections when more general narcosis is required, are all humane measures, and to withhold them is cruel, and almost criminal.

The deepest interest has been manifested by the profession and the laity in the employment of toxins, especially those of erysipelas, as remedies for cancer. The theory is the natural outgrowth of the germ-theory and of the presumption that there is a cancer-microbe which cannot coexist with the more active one found in erysipelas. The antagonism between these two diseases has often been noted, and twenty years ago, Dr. Morgan, who attended the cancer-wards of the Middlesex Hospital, London, was accustomed to make a more favorable prognosis if an operation had been followed by erysipelas during the healing-process. There are instances on record where a supposed epithelioma of the skin has been cured by this acute dermatitis.

The employment of the erysipelas-toxin, however, is a different matter. I now have records of many cases treated by these injections. Not a single case has been cured; one has been greatly improved (the disease being internal and the diagnosis doubtful); some have been slightly improved; there have been several deaths accredited to the toxin, and in many instances the results were negative. At a later period, I shall publish the histories of such cases as occurred in my own

practice, and only refer thus briefly to the subject now to emphasize the fact that thus far we have not passed beyond the stage of experiment with this agent, and all theories and prognostications of to-day may finally require amendment and perhaps be abandoned altogether.

It is intended that these notes shall be considered merely suggestions, which may be familiar to every one who has the care of many cancer cases. However, the surgeon's duty often leads in the direction of palliative treatment, and there is no class of cases which is so worthy of such unsparing attention to the minutest details as that now under consideration.

We should not too readily relegate a patient to the list of incurables, but be guided by the fact that while an operation in the very early stage is likely to produce a permanent cure, the more advanced cases, under present methods of operation, often yield results which are as gratifying as they are unexpected.

PHLYCTENULAR OPHTHALMIA.

BY T. C. EVANS, M.D.,
OF LOUISVILLE, KY.;
LECTURER ON OPHTHALMOLOGY AND LARYNGOLOGY IN THE KENTUCKY SCHOOL OF MEDICINE; MEMBER OF THE LOUISVILLE CLINICAL AND SURGICAL SOCIETIES.

PHLYCTENULAR ophthalmia is much more frequent in childhood than in adult life. It occurs commonly among the poor and underfed, especially those who live in overcrowded quarters with unsanitary surroundings, and in children who are the subjects of what we call "lymphatism." The percentage of cases occurring in the negro race is not greater than in the Caucasian, who have like surroundings. The frequency with which it complicates, or is complicated by, eczema, has led most of the recent investigators to regard it as an eczema of the conjunctiva and cornea. The phlyctenule itself consists primarily of a mass of lymphoid cells, beneath the epithelial layer of the conjunctiva or cornea. In the cornea this exudation or infiltration of cells usually takes place around a terminal filament of one of the corneal nerves. The central cells in the phlyctenule undergo necrotic changes, the epithelium over its surface is destroyed, and the papule or phlyctenule is succeeded by a small, crater-like ulcer. The hygienic surroundings, the general nutrition of the patient, the location of the ulcer, and the character of the microbic infection, etc., will determine whether the ulcer will speedily heal, remain stationary, or indolent, or become progressive and be complicated by an opacity or perforation. The relapses and recurrences of the disease, which are of common occurrence, are due to the formation of fresh phlyctenules. Each phlyctenule is from two to three millimeters in diameter, and each has its own area of congestion. The nearer they approach the cornea the more serious do they become, and the more unfavorable the prognosis in regard to duration, pain, and final termination. When the lesion is entirely within the conjunctiva, the process subsides rapidly after the ulcer is formed, and the healing is complete in from one to two weeks. When the lesion is in the cornea, the healing process is preceded by the development of blood-vessels from the limbus.

The subjective symptoms of the disease when it is confined to the conjunctiva are very slight, perhaps only an itching or burning sensation. When it affects the limbus or the cornea the pain is severe, both in the eye and in the supraorbital region; but the symptom most complained of is the photophobia, which is often intense, causing the child to bury its head in its mother's lap or in the bedclothing for hours and days together. The dangers from the disease are from perforation of the cornea, with prolapse of the iris; infection of the ulcer with hypopyon, iritis, or irido-cyclitis; corneal opacities; facets of the cornea with irregular astigmatism.

The ensemble of symptoms that accompany phlyctenular disease, the photophobia, the profuse lachrymation, the blepharospasm, the eczema, the nasal discharge and obstruction, together with the attitude of the patient, are so characteristic that the diagnosis is made even before the eye itself is examined.

In adults and tractable children a satisfactory examination can easily be made after the instillation of a few drops of a four-per-cent. solution of cocain; but in refractory children with blepharospasm it is better to resort at once to the use of chloroform rather than have a "scene," which always follows when an attempt is made to hold the child and force the lids open with retractors.

The treatment is local and general. The character and details of the local treatment will of course be determined by the stage, location, and complications of the lesion. The first indication is to keep the eye thoroughly cleansed by frequent washing with a solution of boric acid. If the patient is old enough the eye should be protected by smoked glasses. In the uncomplicated cases the old-time Pagenstecker's ointment of the yellow oxid of mercury still holds the first place in local therapeutics, though now no one in this country uses it in the strength advised by him in his article on the subject, *viz.*: from 30 to 60

grains to the ounce, though European and some of the American surgeons still advise from 10 to 24 grains to the ounce. Children tolerate the stronger ointments better than adults. I usually prescribe 1 grain to the dram, or 8 grains to the ounce, which rarely causes pain. In compounding the prescription it is important that the amorphous yellow oxid and not the crystals be used, and that it be rubbed down with a few drops of olive-oil before adding it to the base, unless the druggist is in the habit of compounding oculist's prescriptions. It is always well to specify this in ordering. The ointment should be applied inside the lids with a spatula or brush once or twice a day. Probably next in importance comes the instillation of eserin; this may be used from four to six times a day along with the ointment or other treatment. I rarely use the eserin-solution stronger than one-half grain to the ounce; more frequently one-fourth grain to the ounce. I think no one who has tried the effect of a two-grain solution in his own eye will likely prescribe it for his patients. While atropin is recommended in most of the text-books, it is contraindicated except in cases complicated by perforation or iritis. When the phlyctenules are confined entirely to the conjunctiva, the insufflation of calomel has been highly recommended. In the infected and indolent ulcer, more radical measures are indicated, the actual cautery or galvano-cautery, or curettement, with the application of tincture of iodin or carbolic acid to its base. For the relief of the blepharospasm, dipping the child's head and face in a basin of cold water, and divulsion of the orbicular muscle with lid-retractors, are the means generally advised, neither of which can be carried out in private practice. The photophobia is partially relieved by the instillation of cocain, but the effect is transient, and I believe its constant and continued use retards the healing of the ulcers, and that it should not be used except for making an examination of the eye.

I have recently had considerable experience with subconjunctival injections of the bichlorid of mercury in phlyctenular ulcers of the cornea, with marked photophobia. It seems to limit the microbic invasion, and hasten the reparation-process, and very markedly lessens the photophobia. In several well-marked cases the patients have ceased to complain of the photophobia after the first injection. I inject from 5 to 15 minims of a 1-3000 solution. The eye is first thoroughly cocainized, and the injection is made with the ordinary hypodermic syringe. The injection of this amount of fluid into the cellular tissue will cause considerable ballooning of the conjunctiva, but the fluid is rapidly absorbed. The pain during and after the operation is as a rule inconsiderable. The injection is repeated in forty-eight hours. Whether the results are due to the therapeutic or antiseptic action of the mercury, or to the mechanical action of the fluid in flushing the lymphatics, has not been definitely determined.

The constitutional treatment is more prophylactic than curative in so far as the eye is concerned. When it is possible the improvement of the hygienic surroundings of the patient is of the first importance, but a large proportion, in fact the majority, of these unfortunates are surrounded by unsanitary conditions that are beyond the control of both the patient and the physician. The accompanying eczema should of course receive the appropriate treatment. The general nutrition should be looked after, cod-liver oil alone, or combined with the iodid of iron, is indicated in many of the cases. The discharge from the nose, which in children constitutes a troublesome and unsightly complication, is due not to disease of the nasal cavities but adenoid growths in the naso-pharynx. The removal of the growths must be accomplished by surgical means, preferably I think by the Goettstein's curette. It is impossible to remove or reduce them by any form of medication, either local or general, and to treat them expectantly is to subject the patient not only to the dangers of recurring attacks of phlyctenular inflammation, but to the whole catalogue of complications that follow on these hypertrophies. The faucial tonsils are also often hypertrophied in patients affected with phlyctenular disease. Their removal will add much to the patient's comfort, though the danger from these is not nearly so great as in the case of the pharyngeal tonsil.

THE USE OF PERMANGANATE OF ZINC IN THE TREATMENT OF GONORRHEA, WITH A REPORT OF FIFTY CASES.

By A. S. HOTALING, M.D.,
OF BALTIMORE, MD.;
RESIDENT PHYSICIAN BAY VIEW HOSPITAL.

ONE who has had experience in the treatment of a large number of cases of gonorrhea knows how surely, as a rule, occasional failure follows one routine line, no matter how faithfully carried out. Absolute rules of practice cannot possibly be laid down in such a manner as to be applicable to every case and condition that may arise in the progress and extension of urethritis. The remedy which has given me the most satisfaction

in the largest number of cases is permanganate of zinc. It is a crystalline substance resembling permanganate of potash, and is very readily soluble in water. The drug in my hands has proven equally successful in the treatment of both acute and chronic cases. One remarkable characteristic of its action is the almost total absence of irritation following its use, the patient seldom complaining of pain.

Its effect is discernible almost immediately, the discharge in the majority of cases becoming greatly reduced after a few injections. The method of treatment is simple.

After the stage of acute inflammation has subsided, the injections are made four and five times a day after urination, with an ordinary blunt-pointed hard-rubber syringe, with a capacity of from three to four drams.

My rule is to begin with a solution of one-half grain to the ounce of water, gradually increasing it to one and a half grains. An alkaline diuretic is given, and the hygienic part of the treatment, which is of the utmost importance, is followed closely in every case.

The treatment was under my personal supervision, instead of being conducted by the patient.

I do not recommend permanganate of zinc as a cureall, but a perusal of the following summary of fifty cases will, I think, illustrate the value and utility of the drug. It might be advisable to state that the permanency of the cure was proven in nearly every case by the "two-glass test" and microscope.

In thirty-three cases it was the first attack of gonorrhea. The average duration of urethritis before the commencement of treatment was about three weeks. The average cessation of discharge after commencing the injections was nine days. Cure was pronounced permanent in an average of twenty days after treatment began.

In the above cases there were two failures; one where the injections were discontinued owing to the gonorrhea being complicated by orchitis. In the other the injections seemed to have no effect on the discharge, and the patient was eventually cured by another line of treatment. Of the remaining cases, ten had had previous attacks, and seven were chronic when they came under my observation in the hospital.

The average duration of the discharge in the cases with previous attacks, the cessation of discharge, and permanency of cure were practically the same as in the thirty-three cases first cited. Of these four failed to yield to permanganate of zinc, three being complicated by stricture. Cure was completed in these cases by the use of sounds after injections were discontinued, and one still remains in hospital, no success as yet having followed any line of treatment. The chronic cases had had gonorrhea on an average for six months, and in five cases success followed the use of permanganate of zinc even more rapidly than in the acute.

The two remaining were complicated by stricture and patches of granulation.

While the permanganate of zinc caused a cessation of the discharge, the urine, when voided, still contained shreds from the urethra.

This was cured under proper treatment.

[Since this article was first written, I have had eight additional cases, six acute and two chronic, all of which were cured by permanganate-of-zinc injections, making a permanent cure in fifty out of fifty-eight cases treated.]

IMPROVED METHOD OF EXPLORING THE THORACIC CAVITY.[1]

BY J. McFADDEN GASTON, M.D.,
OF ATLANTA, GA.

QUENU, at the suggestion of Estlander, first executed section of the ribs without resecting them, while Delorme has improved upon this idea of a trap-door to reach the contents of the chest.

The process described by Delorme consists essentially in the formation of the flap from the soft parts of the thoracic wall and the ribs, which, when retracted, affords wide access to the field of operation. After the completion of the operation, the flap is replaced and sutured to the thoracic wall. The flap is formed as follows: An incision representing the three sides of a rectangle is made in the region between the third and sixth ribs. The base of the flap, then formed, is directed posteriorly and above, and its upper and lower margins run parallel with the ribs, and extend from the axillary border of the scapula to within three fingerbreadths of the sternum. At the anterior margin of this flap, the ribs and intercostal muscles are divided, while at the posterior margin only the ribs are divided to a limited extent. The flap is then loosened at its upper and lower margins and thrown back. This operation has been used by Delorme in a tuberculous abscess of the chest-wall, which perforated into the thoracic cavity, also in a fatal stab-wound of the chest.

Charles E. Jennings of London performs a similar operation for pneumonectomy, demon-

[1] Read before the American Surgical Association at Detroit, May 27, 1896.

strating it on the dead body. He makes an incision four inches in length, parallel to the lower border of the first rib, and carried outward toward the coracoid process. The skin, fascia, and pectoralis major are divided. A vertical incision must be made from the third costo-chondral junction below to the inner extremity of the horizontal incision above. The upper border of the pectoralis minor having been depressed, the second rib must be divided, first close to the outer extremity of the horizontal incision, and then through its chondral attachment. The intercostal muscles must be divided in the lines of the cutaneous incisions; a flap consisting of skin, fascia, pectoralis major, and part of the second rib and intercostal muscles can then be thrown down and the parietal layers of the pleura can be divided. This gives ample space for an operator's hand with the partial removal and replacement of one rib.

D. Lowson of Hull, England, made an incision from the midsternum along the course of the second rib, through the pectoral muscle, nearly to the edge of the axillary fold. From the inner end of this, he also cut for two inches downward along the middle of the sternum. The skin and muscle being reflected from the second and third ribs, the external intercostal muscles were separated above and below. The ribs were divided through the cartilage internally, and the bone externally.

The exposure of the cavity of the chest with the mediastinum may be most satisfactorily accomplished by the following procedure, for effecting a trap-door opening through the thoracic wall. The arm should be raised above the head. An incision is made in the mid-axillary line, directly downward, from the third to the eighth rib, inclusive or exclusive, without dividing the pleural lining. The first transverse incision is from the upper extremity of the perpendicular incision along the upper border of the third or fourth rib, the second from the lower extremity along the border of the seventh or eighth rib, as may be requisite, extending in front to the costal cartilage. Any bleeding should be controlled before dividing the parietal pleura in making either of these incisions. Scissors which have a blunt point on the internal blade may be used for dividing the pleura in each line, and if the lungs have not been collapsed previously, this will occur upon the entrance of the air into the chest. Upon elevating the detached margin of this flap, which includes all the structures of the thoracic wall, it will be found that the trap-door opens upon the hinges formed by the costal cartilage, and admits of thorough examination of all parts of the chest, including the mediastinum on the side of the operation.

The advantages claimed for this modification of the trap-door principle of exploration are the great simplicity in making the perpendicular axillary incision through tissues involving no complications, and the division of the ribs in a single line only.

It is evident that those who have adopted measures for gaining access to the thoracic cavity by a trap-door, have overlooked the advantages of using the costal cartilages for the hinges of the shutter.

So far as my investigation extends, this is the first occasion upon which this view has been presented to the medical profession.

NOTE.—The field of operation is so free from anything to complicate this exploration, whether for troubles of the lungs, heart, arteries, or mediastinum, that it should not require any special training for a surgeon to make this trap-door into the chest.

CLINICAL MEMORANDA.

LEPROSY.

BY W. T. ENGLISH, M.D.,
OF PITTSBURG, PA.

A MAN aged forty years, birthplace Pittsburg, Pa., height 5 ft. 9 in., weight about 130 pounds, of excellent family history, was admitted to the medical ward of the South Side Hospital, June 30, 1896, and examined by me in the presence of the internes.

His story was that he enjoyed good health in his early life, and when he became twenty years of age he embarked with an engineer-corps for South America. While engaged in the vicinity of Para, Brazil, his duties compelled him to be in the presence of miasmatic swamps, and at night he rested upon the ground. At the expiration of about ten months, he was stricken with a febrile ailment that prostrated him for several weeks. This malady was described as one of debility, weariness, chilliness, failure of appetite, and lassitude, akin to malarial poisoning. At about the same time the company with which he was engaged was stranded, and while awaiting means and tidings from his home he recovered his lost strength, so that he returned after the lapse of one year to his native place, apparently in robust health. This was in 1879. He married in 1881 in Indiana county, Pa. After three years of good health, spots or blotches appeared upon the skin in various parts of the body. Those upon the superciliary region speedily became red and ulcerated, destroying the hair of the brows. The surface of the face, neck, and ears became a deep red, and the ridges deepened until the whole countenance assumed a leonine fierceness. The hair distributed to the face is remarkable for its sparseness, but that upon the scalp is

well preserved. An accidental fall from a wagon is said to account for a depressed nasal septum. Upon the shoulders, arms, and forearms, the discoloration is at present of a brownish, coppery color, the eruption is irregular in form, and the skin is roughened. There is more or less desquamation and exfoliation of the cuticle upon the regions of the discolorations, but the surface is dry except when denuded. The patient relates that these spots began at and proceeded from the extremities, and that from circular blotches they became irregular by running together. It is thus established that the maculæ came first in a somewhat distinct form, and were afterward followed by more extended pigmentation. A certain

FIG. 1.

SHOWING DEFORMITIES OF FEATURES AND HANDS.

want of sensation or numbness is observed in the discolored portions, but upon the hands and forearms there is marked anesthesia. This is true also of the feet and legs to the knees. Nevertheless, he sometimes complains of neuralgic pains, and at frequent intervals he experiences deep-seated tingling, pricking, and burning pains in the palms and in the soles of his feet. The subcutaneous structures, including the muscles, are now becoming atrophied, especially the fingers and toes. The digits are thin, and are rolled in against the palm, while the nails assume a claw-like form. The toes of the left foot are forced down against the sole. There are depressions in the sites of the thenar eminences, due to defective nutrition of the muscles. The mucous membranes of the nose, throat, and mouth are congested and prone to ulcerate. The voice is husky. The conjunctiva is deep-red, and thickened and inflamed, and the eyes are overflowing with a tear-like secretion.

The patient traces the deformity on the foot to the appearance upon the sole of a hardened mass, which he attempted to remove, supposing it to be a corn, but cut too deeply and occasioned a suppurating sore, which was followed by contraction of the tendons. The warped condition of the hands he accounts for by experiences with burns and scalds against which he cannot guard, because of absence of sensation in these parts. Numerous cicatrices exist in the upper and lower extremities that are thus explained.

Further examination reveals the function of digestion fairly well maintained. The secretions are normal in quantity, chemically and microscopically. The mind is clear and active, and the spirits apparently cheerful. The circulation is good in the main, but the extremities are below normal temperature. The pulse is full, regular, and from seventy-five to ninety per minute, quickly changing with position and mental influence. The temperature observes the normal daily fluctuations and the usual altitude. Notwithstanding the anesthetic condition of the lower extremities, the patient maintains the erect posture and walks with reasonable certainty without the aid of sight. At present there are several denuded spots upon his hands which present unhealthy, purplish-hued surfaces, with a thin discharge glistening upon the surface, but occasion the patient no discomfort further than their un-

FIG. 2.

SHOWING MACULÆ ON UPPER EXTREMITIES AND BODY.

sightliness. Left knee-clonus is much exaggerated; the right is only slightly increased beyond the normal.

The diagnosis I have made is lepra anesthetica. Although there is some of the symptomatology of the tubercular form (lepra tuberculosa), it is very common to find these conditions intermingle. Dr. W. C. Foster, who has considerable knowledge of the disease, and also Dr. E. G. Matson, who visited several resorts of the lepers, confirm me in my opinion.

Microscopic examinations, made by Dr. T. L. Disque, of the secretions from the nose and eyes, further corroborate the assumption by discovering the bacilli of leprosy.

Besides the proof thus adduced, the manner of its acquisition appears very plain in the story as told by the patient. His sojourn in a leprous country, and the daily contact with the miasm that is the accredited cause of the malady, will satisfy those who believe it can only thus be brought about. To those who assume that it is contagious there is still evidence sufficient for their satisfaction in the fact that he was often in close relations with individuals suffering from leprosy. It will be noted that this is an incomplete picture of leprosy as it appears in the minds of those who know of it only by indirect knowledge. The stage of gangrenous sloughing has not yet fully developed. The slightest injury or abrasion may precipitate it. Already one finger has gone, as a result of a bruise, and the first phalanx of another digit is also wanting, from a cause too slight to occasion such a loss in one not affected with this malady. A singular persistence in like accounts prevails among all of those who are thus dismembered and deformed from leprotic disease. No matter how trivial or severe the defect, it is rare to find it attributed to its true cause by the subject.

The opportunity to observe this case included but a few days, as his friends speedily took him away from the observation and reach of those who discovered his malady.

To-day, leprosy is more promising of its harvest of death in America than at any previous point in its history. Hyde[1] gives a summary of cases of leprosy in the United States for 1894.

Statistics prove that our own countrymen have ceased to show the immunity from attacks of leprosy that they could once claim, and this case seems to be one in point.

A CASE OF HYDATID CYST IN THE PROSTATE GLAND, COMPLICATED WITH CYSTS IN THE PERITONEAL CAVITY AND LIVER.

By WOLRAD WINTERBERG, M.D.,
OF SAN FRANCISCO.

THE patient was a carpenter, fifty-one years of age, married, and the father of six living, healthy children. He had never been sick until within two years, when he first began to be troubled with difficult micturition. Lately, his condition became so bad that he applied for medical assistance. His physician resorted to the use of the catheter, and when the patient got still worse he sent him to me for treatment in May, 1895. Patient, who was a tall, slim subject, looked pale and was extremely nervous. He told me that for over a year he had not had a good night's rest on account of his frequent desire to pass his urine. He only could void a very small quantity at a time, and sometimes none at all, so that the catheter had to be used.

He was losing strength and flesh and was unable to work at his trade. Inspection and palpation gave negative results, but digital exploration of the rectum revealed the presence of a large tumor about one inch above the anal orifice; it was sessile, immovable, and felt like a solid mass, which extended over the site of the prostate so high up that only by using considerable force could the examining finger reach the upper margin; laterally it extended about two inches from each side of the median line at its widest portion; it was perfectly smooth and regular in shape, and very tender on pressure.

By means of a No. 18 Nelaton catheter, the introduction of which caused a good deal of pain to the patient, about four ounces of urine were withdrawn. This was very turbid, of an ammoniacal odor, with an alkaline reaction, and contained much mucus and pus. My diagnosis was hypertrophy of the prostate. After two weeks of unsuccessful treatment by mechanical and medical means the patient insisted on being castrated, which operation I had previously held out to him as a last resort for the cure of his trouble.

On June 1st this operation was performed, after which, still during anesthesia, a silver catheter, No. 30, could be passed, and the bladder freely irrigated with a boric-acid solution; the urine was ordered to be drawn by means of a Nelaton catheter every three hours. The operation had been done about five o'clock in the afternoon, and about midnight I was called to the hospital, in which the patient had been placed, because the attendant was unable to catheterize the patient who suffered intensely from retention of urine. I found it necessary to chloroform the patient who had become so irritable that he was unable to control himself. I then evacuated the bladder by means of a soft catheter, which I afterward left *in situ*. In spite of this device I was again compelled to resort to chloroform on the following day because the permanent catheter failed to void the urine. From this time on I had to chloroform the patient about three times in twenty-four hours, and withdraw the urine by means of a silver catheter, since a soft catheter did not accomplish the desired results. This treatment was continued for a whole week, at the end of which I was again summoned to the hospital at midnight to see the patient. I found him in great agony caused by retention of urine and proceeded to withdraw it in the usual way, but utterly failed to get a drop of urine even with a metal catheter. I had the patient placed on the operating-table, and with the aid of a scalpel and catheter performed perineal section. On passing the finger through the perineal aperture I felt a large, tense, but somewhat compressible tumor, extending on a broad base from the prostatic portion of the urethra so far up into the cavity of the bladder, that the highest margin could not be reached by the tip of the finger; in front it was in close approximation to the anterior wall of the bladder; a very small quantity of urine followed the withdrawn finger, but when the catheter was introduced to a considerable depth a large quantity was immediately withdrawn. The bladder was then irrigated, a No. 18 soft catheter introduced, and replaced on the following day by a Nelaton No. 36. The patient from this time enjoyed relative comfort, but he had become highly emaciated, his appetite being very poor, the urine was very offensive, and the temperature ranged between 101 and 102°. The bladder was irrigated every three hours with potassium permanganate, and a tonic of iron, quinia, strychnia, and phosphoric acid administered.

On the 15th of June, while washing the bladder, I noticed that on lowering the funnel only a small fraction

[1] *American Journal of Medical Sciences*, No. 108, p. 251.

of the fluid injected into the bladder was returned; I refilled the funnel and the fluid disappeared rapidly on elevating the receptacle, but did not return. Presently the patient told me that he felt some fluid escaping from the rectum. I handed the funnel to an assistant with instructions to pour in some more fluid and elevate it, while I was watching the anal orifice. Very soon the permanganate-solution made its appearance through the anus and washed out the sac of a hydatid cyst. I then proceeded to a digital exploration of the rectum, and discovered an opening in the tumor so high up that it could just be reached by the tip of the finger. The result of a similar exploration of the bladder, through the perineal aperture, was negative; nevertheless, the presence of a vesico-rectal fistula had been clearly demonstrated, and, furthermore, this fistula had been caused by sloughing due to pressure from a hydatid cyst in the prostate gland.

Daughter-cysts were discharged at intervals, not only from the rectum but also from the bladder, which was irrigated hourly with a weak permanganate-solution, because a very offensive odor permeated the atmosphere of the sick-room; the rectum was washed twice a day with warm water. The temperature was still between 101 and 102°; pulse, 100, fairly strong and regular; anorexia; tongue heavily coated; extreme emaciation. After continuing the expectant treatment for about a week without any noticeable improvement, I decided to perform suprapubic cystotomy in order to get a clear inside-view of the bladder, digital exploration remaining negative, because the finger did not reach the fundus of the bladder, and the cystoscope was unavailable because there was no possibility of distending the bladder with the necessary amount of fluid owing to the presence of the vesico-rectal fistula. On the 22d of June the operation was performed, but besides a general hypertrophy and inflammatory condition, nothing abnormal was found in the walls of the bladder; in the upper portion of the prostatic urethra an opening was found through which the finger could be forced into the rectum; some empty cyst-sacs were found in the fistulous tract and detached. By palpation of the walls of the bladder I then discovered a tumor in the peritoneal cavity, close to the right side of the bladder, and about at the height of the fundus. The abdominal wall was incised directly over this tumor, which was found to be attached by a small pedicle to the omentum. It consisted of two ovoid masses, each about the size of a chicken's egg, and agglutinated to each other with their long axes at right angles. After the removal of this mass the palpating finger again detected the presence of some tumors lying closely together in the right iliac fossa. As these tumors could not be removed through the same opening in the abdominal wall, and the patient was thought to be too weak to be subjected to any more prolonged surgical operation, further proceedings were postponed to a more favorable time. The bladder was closed by a treble row of catgut-sutures, the first row uniting the muscularis and mucosa, the two following being seroso-serous. The incision through the abdominal wall was packed with iodoform-gauze, and three days later when there was no leakage of urine from the bladder, it was closed with silkworm-gut sutures. The other incision was closed after Olshausen's method. Irrigation of bladder and rectum continued as before. The perineal fistula was closing rapidly, and after two weeks no more urine was discharged through the rectum. The catheter had been removed from the boutonnière, and patient was able to void urine through the urethra. Temperature normal. Urine free from pus; general condition very much improved; appetite good. Three weeks after suprapubic cystotomy both openings into the bladder were perfectly closed, so that every drop of urine was passed through the natural outlet. Patient could hold the urine for about two hours. After another week's constant improvement in his general condition, patient was again placed on the operating-table for the removal of the remaining tumors. The abdominal wall was incised directly over the tumor which could under anesthesia be easily mapped out in the right iliac fossa. This tumor was found to be firmly adherent all around; it was extraperitoneal, but on that side which pointed toward the median line, it had encroached upon the peritoneum in such a way as to protrude into the peritoneal cavity. While attempting to detach it from the peritoneum this organ was torn. The accident, although unintentional, was no cause of regret, because through the opening thus made I was enabled to remove two other tumors, each about the size of a medium-sized orange, and about two-thirds the dimensions of the first one, which were more or less adherent to the omentum. By further digital exploration through the peritoneal opening I then discovered a large tumor, attached by a broad base to the lower surface of the liver, extending in its principal dimensions backward and upward. I incised the abdominal wall directly over the tumor and sutured it to the abdominal incision. Five days later the tumor was opened and evacuated; it contained about a quart of liquid and daughter-cysts, partly empty, partly filled. By means of a dull curette-like instrument, with a long handle, of which fully ten inches could be passed into the cavity in a latero-posterior direction, so much of the cyst-sac as could be reached was detached and washed out; the cavity was then stuffed with iodoform-gauze, and a liberal amount of absorbent cotton completed the dressing. On each following day this dressing was renewed after thoroughly irrigating the cavity. For about two weeks the washings brought out regularly small daughter-cysts and fragments of the cyst-sac; gradually these discharges diminished in quantity until finally the irrigating fluid was returned clear, still there was a little whitish discharge noticeable on removing the dressing. About six weeks after the operation the patient felt strong enough to leave the bed. Toward the end of December the fistula had closed, but it opened again after a week, discharged for about five days, and then closed definitely. The patient is now perfectly well and able to work at his trade. The case, apart from being very interesting from a pathological point of view, is highly instructive in a clinical sense.

Fortunately for the patient, but not for the interests of science, an autopsy was out of the question in this case, but nevertheless I think I can advance some very good reasons for corroborating the correctness of my views:

(1) The location of the tumor, which extended symmetrically from the central site of the prostate in all directions. (2) Perforation into the bladder took place at the lower end of the upper third of the prostatic portion of the urethra. (3) Relative incontinence of urine persisted for several months after the recto-vesical fistula as well as the suprapubic and median openings were closed. This relative incontinence proves that the sphincter vesicæ, which is found in the substance of the prostate, had been destroyed to a certain extent by sloughing caused by pressure, but was later regenerated.

The clinical lesson taught by this case is, that before resorting to the treatment of prostatic hypertrophy by castration, we ought to use the greatest care and circumspection in excluding all possible errors of diagnosis. Considering the clinical symptoms and history in this case, I felt justified in excluding carcinoma and tuberculous disease of the gland. I confess that the possibility of the presence of a hydatid cyst in that organ never presented itself to my mind. If it had, the character of the tumor might possibly have been determined by puncturing it and microscopically demonstrating the hooklets. In the absence of such evidence, if the withdrawn fluid be clear, containing no albumen, but a large percentage of sodium chlorid and succinic acid, the diagnosis of hydatid cysts will be sure.

The presence of albumen, uric-acid salts, and urea, does not refute the diagnosis of hydatid cysts, but in the absence of other conclusive proof the case will remain doubtful.

The cystoscope would have been useless in my case, for we cannot expect to make the contents of a cystic tumor, covered by thick, opaque walls, visible by the application of this instrument. There were no cysts attached to the walls of the bladder as was seen after suprapubic cystotomy had been done; it was only after rupture of the prostate that daughter-cysts found their way into the bladder and were discharged, thus leaving no doubt about the nature of the case.

Highly regretable as the useless mutilation of the patient in this instance necessarily must be, there is one element of consolation, which, of course, is of no scientific value, to be found in the fact that the patient is not worried by the loss of his sexual organs, and seems to be perfectly satisfied with his present condition.

I may mention, in this connection, as a noteworthy complication, that on the right side there was a hydrocele, containing about six ounces of fluid. The testicle of the right side was about twice as large as the one of the left, which was apparently only two-thirds, or less, of the normal size. Microscopic examination failed to show any structural changes in either of these organs.

The vesico-rectal fistula, in this case, must, in my opinion, have formed a triangle, with its base upward and the apex pointing down, so that a valve-like flap was formed, which afterward facilitated the healing-process considerably, so that after a week's duration no more leakage of urine into the rectum was perceptible.

It is a noteworthy fact that a liver-cyst of such dimensions as found in this case should not have caused any symptoms which would have led to an earlier diagnosis of its existence. The explanation for this is undoubtedly to be found in the peculiar location of the tumor, which could freely expand under the liver and behind the intestines, without compressing any vital organs in such a way as to interfere with their functions and thus to produce marked disturbances in the organism. The only symptom which might have enabled one to find the tumor was a feeling of fulness in the hypochondriac region, and of this the patient only informed me after the cyst had been evacuated.

AN ADDRESS.

THE HUXLEY LECTURE.[1]

By PROFESSOR MICHAEL FOSTER, M.D.

THE lecturer began by stating that he proposed to make his lecture different in character from, and, as it were, a sort of preface to, those which would follow. It seemed fitting that this first lecture should take account of the condition of science in the day when Huxley took his seat as a student at the school of Charing-cross, as compared with its condition now; but the lecturer shrank from attempting any general survey of the progress of science, as affecting the profession, during the fifty years which had intervened.

The first theme was the special bearing on the profession of the advance of science, which became apparent from a survey of the studies of the medical student in the days of Huxley's studentship, and a comparison of these with the like studies of the present day. An examination of the schedule of compulsory studies issued by the Royal College of Surgeons in the early forties, showed that of the sciences ancillary or preparatory to medicine, no instruction was provided in physics, and very little in chemistry, that little coming in the middle of the student's course, and being instructed by lectures only. Of general biology, nothing was demanded by the College of Surgeons, save what incidentally came in Materia Medica, and only a little botany by the Company of Apothecaries. On the other hand, the greater part of each of the three years of study, right to the end of the course, was taken up by what was called anatomy and physiology, but was, in the main, human anatomy, which alone of the studies was taught practically—namely, in the dissecting-room.

The second theme was the complexity of the progress of science, and the intricacy of the bearings of even a single scientific observation. No one observation or experiment could be judged as it stood by itself alone. Its effects and so its worth would depend not alone or even chiefly on its own intrinsic merits, but also on the way in which it joined hands with its fellows. The bearings of a new truth could not be rightly expounded immediately on its birth; its value hung on that which went before, and its power rested on that which was to come. In illustration of this, the lecturer proposed to consider the bearings of some three or four physiological discover-

[1] Abstract of address delivered at Charing-cross Hospital Medical School, London, Eng., October 5, 1896.

ies, some three or four observations each the result of experiments on living animals made in the years of, or in those following closely upon, Huxley's studentship.

The first observation was made by the brothers Weber, in 1845, in Huxley's last year, in which they showed that electric stimulation of the vagus-nerve stopped the heart in diastole, or, as we now say, inhibited it. If the question were asked, What had been the gain of that experiment? the answer would be that its effects had gone far and wide into the whole of physiology, and thus into the whole of medicine, and, indeed, had not yet come to an end. It had enabled us to understand, and that more and more clearly as succeeding observations had illuminated the original one, how the heart is governed by the central nervous system, a matter which, before Weber's experiment, was merely the subject of fruitless contention, and which had shown us how we, too, might control it. It had become, in the hands of the physiologists, a method enabling them to solve problems which without its aid had baffled them. But perhaps its most far-reaching effects, and those which even to-day cannot be fully measured, lay in its having started a pregnant idea—that of regarding the phenomena of life as the outcome of opposing and antagonistic forces, now carefully balanced, now swaying on this side and on that, an idea which had been a guiding light, even if sometimes misused, in our advancing knowledge of the processes both of health and disease, not only in the tissues of the nervous system, but in all those of the body.

The next such observation to which the lecturer called attention was that by Claude Bernard, in 1851, when he showed that section of the cervical sympathetic led to fulness of the blood-vessels in the head and face. The same experiment had been made a century or so before, but dropped stillborn—the fulness of its time had not yet come. In Bernard's hand the experiment became the origin, the beginning, and so the cause of all that advance of physiological and medical knowledge which was indicated by the word "vaso-motor." There could be no need to dwell on how this knowledge had entered into and modified our conceptions of physiological and pathological events, general and special, or how, again and again, it came to the front in therapeutic endeavors. Yet, when Huxley was a student the very basis of that knowledge was not as yet assured; only the most advanced were prepared to admit that the blood-vessels had muscular walls. Bernard's experiment had its strength in Heule's histological demonstration, but had in turn been of such effect that could we draw from the web of the medical knowledge of to-day all that had come of it, that knowledge would become in a large measure a confused tangle—so much do we owe to one single experiment.

The lecturer next dwelt on Bernard's discovery in 1850 of glycogen. The effects of that one observation were again manifold. It had an immediate and direct effect on medicine in throwing light on that terrible disease diabetes, a light which, even if it had not fulfilled the hopes which were first held, had at least, by pointing the way toward alleviation, saved much suffering and greatly prolonged valuable life. But this had been only one and not the greatest of its effects. It had had the most powerful influence as the mother of ideas. It was the first clear direct proof of the synthetic powers of the animal body, and as such had been the parent of the great additions to knowledge, more especially in these latter days. But its chief influence had been, perhaps, that by showing how a tissue in a hidden way profoundly affected the blood, apart from any visible event, such as an outward blow, of secretion-fluid, or a muscular contraction, or a nervous impulse. It was the first exemplar of what we now call "internal secretion." Bernard's experiment had the relation of a father to a son toward all those researches on the thyroid and other organs which in our day had thrown so much light on the inner workings of the body, and added such powerful weapons to the medical armory; and, further, doubling, so to speak, on itself, had led us to a knowledge of the work of the pancreas, in the story of sugar, a knowledge which had cleared up much and promised still more.

The last illustration taken was Waller's observations in 1850 and 1852 on the dependence of the nutrition of a nerve-fiber on its continuity with the body of the nerve-cell of which it is a process. This discovery, also the direct gain of experiments on animals, was in itself alone of value as a contribution to our knowledge of the influences which the central parts of a cell surrounding the nucleus exert on other parts of the cell, and perhaps we did not as yet fully realize all that the observation taught. A still greater effect, however, on the progress of physiology and of medicine had resulted from the guidance and support which it had given to the experimental results of stimulating the cerebral cortex, an effect which yet another result, that gained by the application of the silver-method to the histology of the nervous system, was converting into an advance of knowledge of momentous importance. So far as could be seen, the Wallerian degeneration by itself, the experimental results of stimulation by themselves without anatomical support, and the results of the silver-method by themselves, would each of them have gone but very little way; the union of the three had produced, and was producing, a movement of theoretical and practical advance, whose limits could not be foreseen.

The lecturer concluded by a few words concerning the influence exerted by Huxley on physiology and so on medicine. Debarred by circumstances from fulfilling his early desire to become a physiologist, Huxley was ever ready with a helping hand to others. If English physiology stood at the present day, as it appeared to do, in a sound and hopeful position, that was in large measure due to Huxley's direct and indirect influence.

CLINICAL LECTURE.

TUBERCULOSIS OF BREAST AND LYMPH-NODES.[1]

BY ROSWELL PARK, A.M., M.D.,
OF BUFFALO, N. Y.;
PROFESSOR OF SURGERY, UNIVERSITY OF BUFFALO.

THIS little girl, twelve years of age, has not been well since she was vaccinated, four or five years ago. She

[1] Clinical Lecture at Buffalo General Hospital, Sept. 16, 1896.

shows a large scar on the arm, and her father states that the arm was very sore at the time of vaccination. There is no particular reason, however, to connect her present trouble with the vaccination. The principal complaint at present is of soreness in the right breast. The breast is much reddened, but this appearance is due to counter-irritants that have been used. On either side of the right axilla there is a chain of enlarged lymph-nodes, and there is a swelling in the breast that is tender on pressure. The child has not yet begun to menstruate, though her age suggests that with pelvic changes there may also be a development of glandular tissue in the breast. Sometimes, with approaching puberty, there will be tenderness and pain in the breast and, perhaps, a feeling of fulness, but not an actual tumor, such as is here present. The child has had two of the exanthems—measles and small-pox—each in quite a severe form.

We may exclude a physiological adenoma. There is no suspicion in my mind of malignancy, on account of the early age of the patient. One thinks, naturally, of tuberculosis, which, I believe, involves the mammary gland as often as it does any secreting gland, although tuberculosis of the breast is not often referred to in the text-books. There is also an involvement of the cervical and axillary lymph-nodes. In what tissue of the body the disease was primary, I do not know.

I do not advise operation at present, but I do advise the saturation of the system with those substances which have an antidotal power against the virus of tuberculosis. The physician in charge has been using an application containing ichthyol, of which I am quite fond. The ointment has also contained belladonna, and, as a result of this treatment, the breast is less tender. I often use an ointment of the following formula:

℞	Resorcini	5 parts
	Ichthyol	10 "
	Ung. Hydrargyri	35 "
	Lanolini	50 "

I should advise also the internal administration of guaiacol or of benzosol, in 25-centigram doses, t. i. d. I have seen great improvement follow the administration of this drug in many cases, especially in growing children. The hypodermatic use of tuberculin may also be of advantage. Plenty of fresh air, exercise, and freedom from school-life should be insisted upon. Cases of this nature have been apparently cured, and there is every reason to expect improvement from this line of treatment.

Here is another example of tubercular disease affecting the lymphatic system. This young man of twenty-one has noticed an enlargement of the neck for about a year. You can see the enormous mass, as large as my fist, on the right side of the jaw, while on the other side smaller nodes can be felt, from the size of a pea to that of a robin's egg. The family history is negative, the father dying of an accident and the mother being alive and in good health. In such a case of lymphatic enlargement, we should naturally look for possible sources of infection. In the throat are simply the evidences of mild chronic catarrhal pharyngitis, amygdalitis, etc. The teeth are in better condition than those of many patients whom we see in the hospital. There is no history of previous illness, running from the ears, nor eruption on the head. From any of these sources, infection of the lymphatics of the neck might follow. Especially in young children we may get a history of eczema of the scalp going on to ulceration and followed by involvement of the cervical lymphatics.

I have no hesitation in pronouncing this a case of tuberculosis of the lymphatics. The patient came to be cured, and is prepared to submit to operation. One might say off-hand that these masses are outside the large vessels, and that there is nothing that might not be removed with safety. On examining more carefully, however, I find a large mass in the right axilla and a smaller one in the left. There are undoubtedly tuberculous lymphatics beneath the pectoralis minor and the clavicle connecting those that are palpable above and below. While it would be possible by one, or better, by two long and severe operations to clear out these foci on the right side, there would still remain the lymphatics of the left side, and perhaps others of which we have no knowledge, but which would serve to propagate the tubercular disease. My advice, therefore, is to put the patient on about the same line of treatment as was indicated in the last case. The boy has already had his first injection of tuberculin, and as a result his temperature, which was normal two hours ago, has risen to 100.

Will it be possible to eliminate this disease entirely? I scarcely hope so, but it will undoubtedly be delayed, and the size of the masses will be diminished. In all cases of tuberculosis in which the disease is accessible and strictly limited I believe in operating, but even in local trouble, if the disease be so diffused that we cannot expect to eradicate it, operation is usually disappointing, a nidus for further infection being almost inevitably left behind.

The injections of tuberculin should not be made immediately into the affected area, because an additional amount of adhesion and infiltration will be produced. We must bear in mind the possibility of a demand for operative interference later. There is a little tenderness and redness over the largest mass, and if suppuration occurs the abscess must be opened.

MEDICAL PROGRESS.

Symptoms Produced by the X-ray.—PARKER reports, in the *New Orleans Med. and Surg. Jour.*, September, 1896, the case of a man who was shot in the lower jaw, the bullet passing through the left ramus and injuring the tongue. There was pain on the right side of the face, but the bullet was not found. Four days later an abscess on the right side ruptured into the mouth. He recovered promptly, and had no further symptoms until three weeks later, when for twenty minutes he was exposed to the X-ray. No trace of the bullet was obtained on the plate, and on alternate days he was again exposed to the influence of the rays for periods of time up to one hour and twenty minutes. There were five exposures in all, and no trace of the bullet was obtained. On each occa-

sion, on the day following the exposure, there were the local and general symptoms of inflammation, more marked after the long exposures, and subsiding only partially in a few hours. Two surgeons insisted that an abscess was forming, but after the X-ray tests were abandoned the swelling and pain rapidly disappeared, and did not recur.

LECERCLE (*Gaz. hebdom. de Med. et de Chir.*, September 24, 1896) has noticed in rabbits an increased elimination of phosphates by the kidneys, after the animals were exposed to the influence of the X-ray for three hours. This increase in phosphates continued for two days only.

A Triumph of Peristalsis.—RUNGE, in the *Bost. Med. and Surg. Jour.*, 1896, vol. cxxxv, p. 110, narrates an instance occurring in an insane asylum, which is deserving of a place among the remarkable feats of peristaltic action. A patient, suffering with melancholia, refused to eat, and was fed by means of a stomach-tube. As he soon acquired the habit of regurgitating the whole feeding, he became so emaciated that he never left his bed. One day the attendant came in to feed him, placed the tube on the window-sill, and stepped outside. On his return, half of the tube was missing, and the most careful search failed to reveal its whereabouts. One month later, a watery diarrhea which it set up was terminated by the extraction of the tube from the rectum. The piece swallowed measured 22½ inches.

A Simple Method of Diagnosing Diabetic Blood.—WILLIAMSON, in the *Brit. Med. Jour.*, vol. ii, 1896, p. 731, gives a simple method for making a diagnosis of diabetes by examination of a drop of blood. The amount of grape-sugar in normal blood is from .05 per cent. to .15 per cent., while in diabetes it is increased to from .27 per cent. to .57 per cent. This increase, slight though it is, has a distinctly increased power of decolorization of alkaline methyl-blue, as can be shown by the following test:

In a small, narrow, clean test-tube are placed 40 c.mm. of distilled water. A graduated capillary tube, such as is supplied with Gower's hemoglobinometer, is necessary for this purpose. The tip of the patient's finger is cleaned, dried and pricked, and from the exuding drop of blood 20 c.mm. are sucked up into the capillary tube and blown gently into the water at the bottom of the test-tube. Then 1 c.cm. of a watery solution of methyl-blue, 1–6000, is added, and finally 40 c.mm. of liquor potassæ, and the contents are mixed by shaking. A control-experiment is performed with non-diabetic blood.

The fluid in each tube is of a fairly deep blue. Both are placed in a glass containing water, and this is heated and allowed to boil for about four minutes. The fluid containing diabetic blood changes to a dirty, pale yellow, almost the color of normal urine. The other fluid becomes a bluish green or pale violet, but never loses its blueness. The tubes must be kept still while in the water-bath, as, if shaken, the methyl-blue is oxidized by the air, and may regain a blue tint. This is also the reason why a water-bath must be used for the boiling.

Taylor has applied this test thirty times in six cases of diabetes mellitus, and the decolorization was each time obtained. In 160 examinations made with the blood from healthy patients and from those affected with divers diseases, the decolorization did not once take place.

Trional vs. Sulfonal.—VON MERING has been conducting extensive experiments with trional upon man and the lower animals. His report, together with abstracts of the clinical results obtained with trional by sixteen other professors in as many different cities, is published in the *Therapeut. Monatshefte*, August, 1896. Von Mering himself administered it in almost one thousand instances. In some cases the patient took from 15 to 25 grains every second or third day for three or four months, without experiencing any discomfort. The testimony of the other sixteen professors was similar to his own. All stated that it was a more powerful hypnotic than sulfonal, and free from the unpleasant symptoms which sometimes follow the ingestion of sulfonal. Experience has proved that it is rarely necessary to give more than 15 grains of trional—at most 20 grains—in cases of uncomplicated sleeplessness. A feeling of drowsiness on the following day is proof that too much was given. In cases of sleeplessness due to pain, it works very well in combination with $\frac{1}{10}$ grain of morphin. If, for any reason, it is necessary to give a hypnotic daily for a long time, it is advisable to change the medicine from time to time, substituting occasionally for the trional, amyl hydrate, chloral hydrate, or chloralamid.

A Urethro-rectal Fistula.—BEACH of Pittsburg, Pa., in the *Med. and Surg. Reporter* of September 19, 1896, mentions an instance of that rare condition, a urethro-rectal fistula in the male. It occurred as the result of a perineal lithotomy when the patient was nine years of age. For forty-four years he went about in this condition, occasionally passing small amounts of urine per rectum and gas and feces per urethram. With a sound in the urethra and a rectal speculum, Beach easily demonstrated the presence of a fistulous tract between the two, large enough to admit the finger. A plastic operation was performed to close it, two flaps being taken from the mucous membrane of the rectum for that purpose. A silver catheter and rectal tube were left in position for ten days. The operation was apparently successful, but some months later gas appeared in the urethra and urine in the rectum, and examination showed that the fistula was only partially closed. A second operation will be undertaken to complete it.

Tracheotomy-tubes in the Air-passages—Treatment.—From the study of nineteen cases in which a tracheotomy-tube slipped into the lower air-passage, BILLOT (*An. des Mal de l'Or. du Lar. du Nez, Mar., '96*) draws the conclusion that the presence of the tube is not immediately exceedingly irritating, so that the extraction need not take place at once, but still no more time should be lost than is necessary to obtain suitable instruments. If attempts to extract the tube with the means at hand fail, the patient should be encouraged to breathe deeply. The wound should be held open, or another large cannula may be introduced until preparations for the extraction of the old tube are completed.

On the Suprarenal Capsules in Addison's Disease.—RISPAL (*de Toulouse*) in the *Gazette hebdomadaire de Médecine et de Chirurgie*, August 27, 1896, speaks of the rarity of the absence of the suprarenal capsules in Addison's disease. He knows of but three cases: One reported by Kent Spender, the second by Fletcher, and the third reported by himself, which is as follows: The patient was a man, twenty-four years of age, suffering from Addison's disease, from which he died after ten months' illness. The autopsy showed that both suprarenal capsules were missing; also that there was no destruction whatever of the ganglions of the abdominal sympathetic nervous system.

Hard Chancre of the Eyelid.—ROHMCER, in the *Gazette hebdomadaire de Médecine et de Chirurgie*, August 6, 1896, presents a patient, thirty-five years of age, who, for three weeks, has been treated at the clinic of ophthalmology for a hard chancre of the eyelid. The trouble began by a small ulceration, situated on the inferior lacrimal point. This ulceration soon extended to the inner angle of the eyelids. Intravenous injections of cyanus of mercury (1-100) succeeded in curing the lesion in about a month. There was no enlargement of the preauriculary ganglion, and it was only after the fourth week that a slight enlargement of the submaxillary ganglion could be felt. About this time appeared also a very characteristic roseola.

On Fractures of the Femur Caused by Twisting.—In the *Berliner Klin. Wochenschrift*, August 31, 1896, TILLMANN reports five cases of fracture of the femur, caused by twisting the thigh. The violence seemed to him insufficient, and led him to an investigation of the subject, with most interesting results. In four cases the thigh was broken in the attempt to remove the boot, and in the remaining case the movement was the same, as the thigh was broken while the patient—a young man—was examining a wound in the sole of his foot. Three of the patients were men, aged nineteen, thirty-seven, and forty-eight; and two were women, twenty-seven and thirty-six years old. The man of forty-eight years died as a result of his injury. He had suffered for ten years from tabes dorsalis, while the woman of thirty-six years had shown the symptoms of this disease for two years. It is reasonable to suppose that the femur was weakened in these two patients by this disease, a possibility pointed out by Weir Mitchell in 1873. Charcot says that four per cent. of tabes-dorsalis patients present trophic disturbance of the bones. The other three patients were carefully examined, but they gave no symptoms either of tabes dorsalis or of any other disease which would account for a reduced strength of the femur. Messerer has shown that although a femur requires from 700 to 1000 pounds' pressure to cause it to break by bending, its shaft will give way under a twisting force of from eighty to 300 pounds, a force which is far too small to break off the head of the bone or to tear apart the ligaments at the knee or hip. Tillman attempted to verify these statements upon the cadaver, but he was able to break the femur by twisting in only seven instances. Two of these occurred in children of six and eight years of age, and the others were all in cadavers over sixty years of age. In the other subjects, owing to decomposition, the ligaments at hip and knee gave way. Dissatisfied, therefore, with the results, he looked up the three patients in whom fracture of the femur had no explanation, and at intervals since the accident of eight, five, and three and one-half years respectively, he found every one presenting well-marked symptoms of tabes dorsalis.

THERAPEUTIC NOTES.

For Pruritus.—SAVILL, in the *Brit. Med. Jour.*, September 19, 1896, mentions the good results which he has been able to obtain with calcium chlorid in the most obstinate cases of pruritus. At least 20 grains three times a day are required, and possibly twice that dose, but if given after meals, in a wine-glass of water, it does not disturb the stomach. To conceal its salt taste, it may be administered with a dram of the tincture of orange-peel and an ounce of chloroform-water. The remedy should be continued for two or three weeks after all symptoms have disappeared, and then diminished gradually, and not suddenly discontinued.

Glycero-phosphate in Sciatica.—Solutions prepared according to the following formulæ (*Gaz. heb. de Méd. et de Chir.*, September 13, 1896) are used by BILLARD with great success in sciatica:

℞	Glycero-phosphatis	gram 5
	Aqua distil.	" 25

or

℞	Calcii glycero-phosphatis . .	gram 1.0
	Magnesii " . .	" 1.0
	Potassi " . .	" 1.0
	Sodii " . .	" 3.25
	Aqua distil.	" 25.0

The advantage of these concentrated solutions is in the fact that they keep indefinitely, while a weak solution will decompose. The solution should be put up in small tubes or vials, containing 2 c.cm each, so that fresh fluid may be used for each injection. From 1 to 2, or even 4 c.cm. are injected, under careful asepsis, in the seat of the pain. The effect is an almost immediate relief of the pain at the point of injection. In recent neuralgias, a single injection may suffice to bring about a cure. In more chronic cases, as in chronic sciatica, it is necessary to repeat the injection daily for a considerable time, and in some cases no lasting benefit is noticed. These injections are absolutely harmless, and usually produce no disturbance at the point of injection. The action of the drugs injected is not simply a local one, but they have also a beneficent influence upon the general nervous system.

Injection of Zinc Chlorid for Local Tuberculosis.—ZIEMATZKY (*Rev. de Chir.*, August, 1896) has employed the treatment recommended by Lannelongue in forty cases of tuberculosis of bone. He uses a ten-per-cent. solution of chlorid of zinc in distilled water, an ordinary syringe, and a rather long needle. As the object is to

make the injections subperiosteal, or at least under the ligaments, only a very small quantity is expelled in one place, the needle is withdrawn and another puncture is made. From twelve to twenty punctures are made at one treatment, from 10 to 15 grs. of the solution being employed. It is important that none of the fluid ooze out of the puncture, as the resulting necrosis is likely to form a sinus. This treatment is to be repeated every week.

Of seventeen cases in which the injections were begun in the incipient stage, twelve were completely cured by the injections. If an area of suppuration exists it must be drained and washed before injection, and advanced cases are unsuitable for injection. It goes without saying that important structures including bursæ and joints are to be avoided, and the needle should touch, but not penetrate, the bone itself. The action of the chlorid of zinc is, in Ziematzky's opinion, a germicidal one. Its evident result is first a leucocytosis and then a cicatricial formation.

Celluloid Plates for Flatfoot.—Instead of the usual steel supports for the arch made use of in flatfoot, KIRSCH (*Centralblatt f. Chir.*, No. 35, 1896) has used with great satisfaction a similar support made of sheet celluloid. The usual mold of the arch of the foot is taken, and a plaster model cast in this and shaved away, so as to make a slightly corrected representation of the patient's foot. Over this a sheet of celluloid of the proper size is bent and held in position by means of a towel. Model and celluloid are placed for one minute in boiling water, the towel twisted more tightly if necessary, and the celluloid allowed to cool. Its under surface is roughened so as to prevent slipping in the shoe.

For children, the plate of celluloid should be 1½ mm., for adults, 3–4 mm. (⅛ of an inch) in thickness.

The advantages of this support are its comfort and the ease and readiness with which it can be prepared.

Treatment of Diseases of the Respiratory Organs by Hot Baths.—LEMOINE in the *Gaz. hebdom. de Méd. et de Chir.*, August 27, 1896, speaks of the efficacy of hot baths in diseases of the respiratory organs. He proceeds in the following manner: If the case is very severe and the temperature high, he orders the baths every three hours, otherwise they are given whenever the temperature reaches 102.5° F. In all cases he gives regularly two baths during the forenoon and one during the evening.

The temperature of the bath varies from 95 to 98° F., the patient remains in from five to ten minutes. During the entire duration of the bath, the patient has a cold compress applied to the head, and on being taken out of the bath is rolled in a blanket and made to drink either coffee or grog.

The baths should be ordered in cases of simple bronchitis, capillary bronchitis, broncho-pneumonia, and pneumonia, no matter in what stage of the disease the patient is found. If the case is very grave it is better to begin with a mustard-bath of shorter duration, long enough to redden well the skin. This mustard-bath (if ordered) can only be repeated once during the twenty-four hours, the rest of the time the ordinary hot baths are given. The effects of the bath are very rapid, and it is seldom that they have to be given after the third day. After the first bath, generally, the temperature falls a little, the patient breathes better and is more calm, and later the lungs begin to clear. The baths seem to have a beneficial effect on the nervous system, on the functions of the skin, on the kidneys, and temperature.

Use of Picric Acid in Case of Burns.—PAPAZOLONGO in the *Journal de Médecine*, August 30, 1896, advises the following formula in the case of burns:

℞	Picric acid	5 grams.
	Alcohol (ninety per cent.) . .	50 "
	Distilled water	1000 "

This solution is employed in the following manner: If the burn is very extensive, put the patient, without being undressed, in a picric-acid bath, by so doing there will be less pain when the clothes are removed.

If the burn is limited, begin by washing the burned surface with the above solution; open the blisters to let out whatever serosity there may be, leaving the epidermis in place. After this proceed with the dressing; first put on pieces of sterilized gauze which have been soaked in the picric-acid solution, then cover this with cotton, which is kept in place by a bandage. It is better not to cover the dressing with oil-silk, etc., for this keeps the wound moist, and prevents cicatrization. This dressing is left in place three to four days, when it is replaced by a similar one which is left five or six days. In redressing the wound, if the bandage sticks, moisten it with the picric-acid solution. Burns of the second or third degree heal with two or three dressings, the cicatrix obtained is smooth and supple.

Constant Irrigation in Septic Puerperal Cases.—In the *Journal de Médecine Militaire*, p. 360, 1896, GLIAKOFF describes a method of treatment of puerperal cases by constant irrigation with solutions of carbolic acid and permanganate of potash. A one-per-cent. solution of carbolic acid was first employed, and followed by a weak solution (rose-colored) of permanganate of potash. The irrigating fluid was kept at 104° F., and allowed to flow for six hours. The results were excellent. Only one patient of the twenty-eight thus treated died, and she was not treated until three weeks after labor, and had pyemia. The analgesic effect of the irrigation was marked.

Treatment of Temporo-maxillary Ankylosis.—Two years ago HELFERICH (*Arch. prov. de Chir.*, vol. v, p. 125) recommended the resection of the head of the bone in temporo-maxillary ankylosis, and the interposition by a bit of muscle to prevent deformation of osseous tissue. ROCHET has followed this plan with success in three cases, though instead of resecting the head of the bone—a tedious operation and likely to be followed by facial paralysis—he removes from the neck, just below the head, a trapezoidal piece of bone, and introduces two muscular slips from the masseter, one in front and one behind, stitching them to the internal pterygoid muscle to keep the ends of bone apart.

THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed *exclusively* to THE MEDICAL NEWS will after publication be liberally paid for (accounts being rendered quarterly), or 250 reprints will be furnished instead of payment. When necessary to elucidate the text, illustrations will be engraved from drawings or photographs furnished by the author.

Address the Editor: J. RIDDLE GOFFE, M.D.,
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK.

Subscription Price, including postage in U. S. and Canada.

PER ANNUM IN ADVANCE	$4.00
SINGLE COPIES	.10
WITH THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, PER ANNUM	7.50

Subscriptions may begin at any date. The safest mode of remittance is by bank check or postal money order, drawn to the order of the undersigned. When neither is accessible, remittances may be made, at the risk of the publishers, by forwarding in *registered* letters.

LEA BROTHERS & CO.,
No. 111 FIFTH AVENUE (corner of 18th St.), NEW YORK,
AND NOS. 706, 708 & 710 SANSOM ST., PHILADELPHIA.

SATURDAY, NOVEMBER 7, 1896.

PUBLIC BATHS AND PUBLIC-COMFORT STATIONS FOR NEW YORK CITY.

COMPLAINT has frequently been made regarding the supineness and bad management of the officials of New York regarding baths and stations for public comfort. Lately, the *Independent* has returned to the charge and indicates that the work must all be done over again, beginning with new legislation at Albany.

A law was passed March 25, 1896, authorizing the appropriation of $200,000 for public baths in this city. The appropriation is excellent; but there are certain grave defects in the bill, because it does not provide for the purchase of any property for the location of public baths; they are to be erected in the public parks. The error of this provision was evidenced by the strong local feeling in opposition to a bath in Tompkins square. Again, the baths should not be free, a conclusion which is confirmed by the practice of English and Continental cities. While the city should build them, those using them should pay for that privilege. The most important defect in the bill is the way in which responsibility is divided.

According to the law, the Department of Public Works is to build the baths, and in case any of them should be located in parks, the Department of Public Parks is to exercise control over them. The operation of a public bath is solely a matter of public health and sanitation, and there is again no reason for departing from the previous practice, which placed them under the control and supervision of sanitary authorities, which in New York would be the Health Department. It is rather a common practice with the English municipalities to make a bath-establishment a common place of meeting for the members of a parish for recreation and improvement.

The proper provision of public-comfort stations is axiomatic, and the lack of these conveniences is a disgrace to American cities and towns, and New York in particular. On July 5, 1895, an Advisory Committee was appointed by Mayor Strong to take this subject under advisement, and to report at once some means for carrying out recommendations of the Sub-Committee, appointed by the Committee of Seventy on Public Baths and Lavatories. It is now more than a year since that appointment, and nothing has been done. When will the Mayor's Committee emerge from their cloistered seclusion with a few practical suggestions? It may be, however, that advice has already been proffered by them, and not accepted by the Mayor.

THE PREVENTION OF CHOLERA IN INDIA AND THE ERECTION OF A LOCAL PASTEUR INSTITUTE.

MR. ERNEST HART, the distinguished editor of the *British Medical Journal*, in a recent letter has given a most interesting and instructive account of the evolution of vaccination against cholera. Incidentally he also presented a brief but fascinating sketch of the life of Haffkine to whom most of the credit is due for all that is known in this promising branch of preventive medicine. That these discoveries are not accidental, but rather the results of well-planned research on the part of minds especially adapted for such work by both nature and education, is manifest in the fact that Pasteur, when requested by the king of Siam to furnish an antidote for cholera, turned at once confidently to this young man to undertake

the task. At this time (1891) Haffkine was professor of physiology at Geneva.

Any investigation along this line seemed hopelessly blocked in the very beginning by a natural immunity of all lower animals to the infection of human cholera. But it was not long before an acquired susceptibility was induced in rabbits. The next difficulty encountered was that the intensified or "exalted" virus produced such active local inflammation that sloughing at the site of injections was the invariable result. But this, too, was finally overcome by the discovery that in using preliminary inoculations of the attenuated virus the system could be so prepared as to obviate entirely the local irritation. Early in 1893 the method was tried by Haffkine upon himself and some fifty courageous volunteers with the positive confirmation of its safety. It is a notable fact that up to the present time 70,000 vaccinations have been made upon 42,000 individuals without an accident of any kind. After demonstrations of his method in Paris, and in London before the Royal College of Physicians and Surgeons, Haffkine was allowed to proceed to Bengal where his mission received active interest and support from the Indian authorities. The magnitude of his undertaking, as well as the urgent need for succor from some source, requires no further emphasis when we consider the many thousands of human lives surrendered to this insatiable enemy of mankind in tropical Asia. An interesting feature that contributed greatly to the success of the experiment is the fact that the natives, instead of opposing this procedure, looked upon it as a revival of a traditional practice among their early religious teachers, and accepted it with alacrity.

In April, 1893, Haffkine began work in those regions of India where the disease is endemic, and for twenty-nine months inoculated all classes and conditions of men to the number of 11,000.

The result of these investigations justifies the statement that the vaccinated are twenty times safer from the disease than the unvaccinated, and eighteen times securer from death. The effects are of such a manifestly promising character that steps are being rapidly taken to establish a local Pasteur Institute. *The Indian Medical Record* states that the government of India has offered 5000 rupees annually toward its support, and 10,000 toward its erection, with the following provisions: (*a*) That competent vaccinators are provided to deal with outbreaks of cholera, and to inoculate coolies recruited for the tea gardens; (*b*) to inoculate hydrophobia-patients; (*c*) to give instruction in practical bacteriology. The national tea- and mining associations are expected to contribute liberally to the erection and support of the institution.

THE TREATMENT OF HEMORRHOIDS.

WHERE a large number of different surgical procedures are recommended to cure a certain condition, it is apt to mean unsatisfactory results. This is not true, however, in regard to the cure of hemorrhoids. The surgical treatment of this condition dates back to the earlier centuries, and some of the newer methods differ but slightly from those recommended fifty years ago. The operations which the last decade has brought forth, however, notably that of Whitehead and its many modifications, have taken a prominent position in the treatment of hemorrhoids.

During the past twenty-five years there have been much discussion and difference of opinion concerning both the major and minor operations for the cure of this condition. Whether or not the injection into the pile of diluted carbolic-acid, alcohol, or other solutions, is a safe and reliable plan of treatment, is a question which as yet has not been satisfactorily answered. The popularity and undoubted success of this method of treatment among quacks certainly indicates that it possesses some virtue. While occasionally disagreeable results follow such injections, and while frequently cure does not result, yet it must be granted that in many cases relief is obtained. It is suitable for a limited number of cases only.

Of the major procedures the three methods which are generally adopted are the ligature, the clamp and cautery, and the Whitehead operation. Each one of these gives excellent results, and it is difficult to decide which one will give the best results in the greatest number of patients. It is true that many a surgeon will favor a certain method. He adopts it in a large number of cases; his results are good; he learns from constant

practice to perform it very skilfully; he becomes prejudiced in its favor, and finally, claiming superiority for his particular procedure, adopts it for all his patients, a certain number of which could preferably be treated by one of the other methods were its details as perfectly carried out by him as are those of his "pet" operation. The operative treatment of hemorrhoids affords one of the best illustrations of this rather warped state of mind. One authority claims that incomparably better results are obtained after the ligature-operation than after the employment of the clamp and cautery. Another authority of equal distinction claims that the clamp and cautery-method is superior to all others, and that he makes use of this method exclusively. The advocates of Whitehead's method have found it thoroughly satisfactory, though they advance their claims in a more modest manner. Probably this operation has received a greater share of abuse and severer condemnation than either of the others, and certainly more than it deserves. To the unprejudiced observer the plan of Mr. Whitehead is for certain cases the best of all. As a method for general use in all cases it is the worst.

It is true that a greater amount of technical skill is needed, that more blood is lost, and more time consumed than is the case with either of the other methods. With a practised surgeon and skilled assistants, however, these objections should not prevent the choice of this method in suitable cases. The ligature- and cautery-operations are simpler, and are certainly better adapted for general use. One method seems to be as commonly used as the other. The same advantages are claimed for each, and it must be granted that the results of either plan are in the majority of cases satisfactory.

The recent operations which have been proposed are generally modifications of the Whitehead-method. Variations of the old plan of excision are also from time to time introduced. The general tendency of these modifications is to remove the hemorrhoidal bunches, and at the same time not to cut away the mucous membrane from the entire circumference of the rectum, on the theory that the membrane lining the canal-outlet has functions to perform. Practically, these functions have never been satisfactorily demonstrated, but several interesting studies of this subject have been made, as for example the careful examinations and dissections of the anal mucous membrane by B. B. Stroud of Cornell University, who has found that in the mammalia there is a narrow zone of transitional epithelium between the skin and rectal mucosa, called the pecten, in which he claims are the peripheral ends of nerves concerned with a special rectal sense, and that also in some human individuals there are developed papillæ which he believes to be important additions to the "rectal-sense" apparatus. Other physiologists and surgeons have made the same claim and attribute the incontinence, which at times follows Whitehead's operation, to the removal of these terminal sensory nerves, though it is quite as probable that it is rather due to injury of the sphincter-muscle during the operation. In some of these modifications strips of the mucous membrane are left undisturbed, the piles with the overlying mucosa being excised between them. In others, as in the procedure advocated by Baumgartner at the last German Surgical Congress, the hemorrhoids are excised through a vertical incision in the mucous membrane and skin, the edges of which are afterward united. This, however, is practically the same method as was introduced by Quénu and others years ago. Other methods are of less importance.

In one sense it is rather unfortunate that there should be such diversity of opinion on this subject. The student and young surgeon are apt to be bewildered by such contradictory statements. They can feel assured, however, that either one of the three methods is safe and reliable, and is supported by authority of equally skilful rectal specialists. Experience must teach him the rest.

A. J. McCosh, M.D.

ECHOES AND NEWS.

Electric Heaters.—The German Hygienic Association offers a prize of $1200 for an essay containing original research upon the efficiency of electric heaters for domestic purposes.

A Classification of Skin-diseases.—John Hunter divided skin-diseases into three classes: Those which are cured by

sulfur; those which are cured by mercury; and those which the devil himself could not cure.

Two Chinese Lepers Escape.—Long Dong and Sam Loo, Chinese lepers, who had been confined in the leprosy-ward in the hospital on North Brother Island, New York, for nearly one year, escaped on the night of October 28th.

Serum-therapy in Pulmonary Phthisis.—Régnier in an "Essay on Serum-therapy in Pulmonary Phthisis," by Maragliano's method, announces the results in 325 cases as follows: Stationary, 50; improving, 140; good results, 45; no results, 25; deaths, 14.

The Parasite of Whooping-cough.—Kurloff believes that the specific microörganism of whooping-cough is a protozoan. He has found uniformly in the fresh sputa of patients ameboid organisms with spherical spores characterized by concentric lamination.

Dr. Bolton's Resignation.—Dr. B. Meade Bolton has resigned the position of chief of the Municipal Bacteriological Department, Board of Health, Philadelphia, in order to take a professorship of bacteriology and pathology in the University of Missouri at Columbia, Mo.

A Roll of Honor.—A hall has been established in the Val de Grace Hospital in Paris where the names of French medical men who died in the performance of their duty are inscribed on marble tablets. A list of 143 practitioners has been placed on its walls, all of whom perished in the yellow-fever epidemic in San Domingo, 1801–1803. *Indian Medical Record.*

The Turin Institute.—During the first six months of 1896 345 persons bitten by dogs that were mad, or suspected of being so, presented themselves for preventive treatment at the Turin Institute. There were no deaths among the 229 that followed the Pasteur treatment. Since September, 1896, the date of the opening of the institute, 2895 persons have been treated by injections of the virus, and the death-rate has been 0.76 per cent.

The Plague in Bombay.—According to the Bombay newspapers the generally accepted theory of the outbreak of bubonic plague in the presidency is that the disease was imported from China, it having first appeared among the Lohanas, who are mostly employed on steamers trading with China. The plague caused great mortality among the rats before the inhabitants were aware of its presence, and this is probably confirmatory of the theory that these animals are the carriers of the infection.

Obituary.—James B. Murdock, M.D., late dean of the Western Pennsylvania Medical College, died October 29th at Bellefield, Pa. He was born at Glasgow, Scotland, in 1830. He was graduated from the College of Physicians and Surgeons, New York City, 1854. For a time Dr. Murdock practised medicine in Oswego, N. Y. He located in Pittsburg in 1877.—Professor H. Newell Martin died at Burley, England, October 27th. Professor Martin took the chair of biology at Johns Hopkins University in 1876, and served until 1893, when he was compelled to retire because of failing health. He studied with Huxley, and was by him recommended to the faculty of the university.—Dr. C. E. Brown-Séquard, the only son of the late Professor Brown-Séquard of Paris, France, died recently at the age of thirty years in Atlanta, Ga., where he was engaged in scientific work.

Sulfonal in the Night-sweats of Phthisis.—Combemale and Descheemacher, in the *Bull. med. du Nord*, record experiments with sulfonal in the night-sweats of phthisis. In the first and second stages of consumption, in some instances, sulfonal causes entire cessation of the sweating, in others the sweating is limited, especially to the head, while in others the sweating disappeared, but a slight moisture of the skin was noted. While complete stoppage of night-sweats is not always obtained, they are at least greatly modified.

The Use of Kidneys in Renal Diseases.—The Berlin correspondent of *The Medical Press* says: "Following the prevailing fashion of the day an ingenious Russian physician has for some time administered kidney in renal disease. The cases consisted of acute and chronic parenchymatous nephritis, granular and amyloid kidney. Increase of urinary secretion, diminution of albumin, and cessation of uremic symptoms were observed. After taking at least twenty kidneys the therapeutic effect was permanent, and the patients could be looked upon as cured. The kidneys were given fresh and in a raw state."

The Formation of Antitoxin by Electrolysis.—Marmier in *Annales de l'Institut Pasteur* describes a series of experiments to determine whether antitoxin can be obtained by electrolysis. He finds that with venin and with diphtheritic toxins he is able to obtain no attenuating effect with alternating currents of high frequency, but that with continuous currents there is a distinct attenuation of the virus to be noted. Continuous or alternating currents of low frequency destroy bacterial toxins, simply because they have the power of producing hypochlorites and chlorin from the chlorid of sodium dissolved in the solution of toxins, this substance in a nascent condition exerting a considerable effect upon the toxins.

Origin of Fat in the Body.—Kaufmann, in the *Archives de Physiologie*, gives the results of his experiments upon the origin of fat. His conclusions are as follows: The proteids, in common with the customary compounds of the food, contribute, though not exclusively, to the formation of fat. When, during digestion, there is absorption of a large quantity of proteids, they disintegrate and form fat. Of this, one part oxidizes and, passing through the glucose stage, supplies the physiological energy requisite for the organism; a second undergoes incomplete oxidation and is transformed into carbohydrate, which is stored up in reserve as glycogen; the third is deposited as fat. The proportion of fat deposited during digestion varies with the abundance of the repast, and the amount of glycogen in the organism. The whole of the non-oxidized fat may be converted into glycogen in an animal poor in that substance. Calorimetric investigations demonstrate that

the anaërobic decomposition of albumin, if it occurs, is not attended with any liberation of heat.

N. Y. State Association of Railway Surgeons.—The following is the program of the sixth annual meeting to be held in the Academy of Medicine, New York, Tuesday, November 17, 1896. Morning session, 9.30 sharp: (1) "Modern Methods in the Treatment of Fractures," Dr. R. H. Cowan, Radford, Va.; (2) "How can we best Secure Immobilization in Compound Fractures at or near Articular Processes?" Dr. Z. J. Lusk, Warsaw; (3) "Immobilization and the Treatment of Fractures at the Elbow-joint," Dr. J. H. Glass, Utica; (4) an address, "Injuries to the Head," Dr. Roswell Park, Buffalo; (5) "Relief and Hospital Department," Dr. Frank H. Baldwell, Waycross, Ga. Afternoon, 1.30 sharp, executive session: (6) President's address, Dr. C. S. Parkhill, Hornellsville; (7) "Traumatic Neurasthenia," Dr. J. E. Walker, Hornellsville; (8) "Cases of Apoplexy following Some Time After Accidents," Dr. William Browning, Brooklyn; (9) "Cranial Injuries," Dr. W. A. Ward, Conneaut, Ohio; (10) "Distinctive Features of Railway Surgery," Dr. R. S. Harnden, Waverly; (11) "Granulation-surfaces," Dr. John Van Duyn, Syracuse; (12) "Chloroform-anesthesia," Dr. Webb J. Kelly, Galion, Ohio; (13) "Injuries to the Eyeball," Dr. Samuel Mitchell, Hornellsville; (14) "Acute Infective Thecitis," Dr. A. Llewellyn Hall, Fair Haven, N. Y.; (15) "Compound Fracture of the Skull, with Injury to the Brain-substance, with report of cases," Dr. J. G. Kelly, Hornellsville. In the evening there will be a reception and banquet at the St. Cloud Hotel, in honor of the invited guests of the Society.

CORRESPONDENCE.

THE USE OF SURNAMES ONLY IN CITING AUTHORITIES IN MEDICAL LITERATURE.

To the Editor of THE MEDICAL NEWS:

DEAR SIR: Having been engaged lately in literary work involving considerable consultation of papers and verifying of references, I have realized, as any one must under the circumstances, the extra labor necessitated by a practise, which has always been more or less general with authors, of mentioning only the surnames of writers and investigators referred to. Any one who has had experience cannot fail to have been struck with the large number of persons of the same surname who are contributors to medical literature, so that a reference to Dr. Sydenham's or Dr. Jones' views, or Dr. Ranklin's papers, gives a very imperfect idea of the individuality of the author. Take, for example, the name Hoffman. The student will find, in the Surgeon-General's catalogue, this surname more than one hundred times, and, of these many Hoffmans, quite a number are authors of voluminous and important papers; so that to be told that Hoffman believes thus and so is of little assistance to the reader who desires to look up his views and papers. Again, to take a name to which modern medical literature often refers—Laveran. At least two Laverans, both army surgeons, have written papers of importance. The Laveran[1] whose name is so identified with the malaria plasmodium is A. Laveran, while Louis Laveran is a very different person; yet writers only quote Laveran. It is needless to multiply instances; they will occur to any one. My object in asking publicity for this letter is to beg writers to adopt the practice of giving the full name of the authority quoted. This, of course, involves a little trouble at first to hunt up the Christian name, but, as years roll on and we all are thus explicit in indicating authorities quoted, it will become easier and easier, while the amount of labor saved to those looking up references will be immeasurable. Especially important is it that the editors of the various hand-books and annuals, which are now filling such a useful niche in medical literature, should adopt the practise of using the full name, for it is from suggestions in such books that writers often want to look up references.

Respectfully yours,

JAMES TYSON.

PHILADELPHIA, PA.,
October 30, 1896.

SPECIAL ARTICLE.

PROGRESS AT CRAIG COLONY DURING THE EIGHT MONTHS SINCE THE OPENING.[2]

THIS has been the crucial year in the evolution of Craig Colony. All of the buildings, which were in the Shaker settlement at the time of its purchase for dependent epileptics by the State, have been thoroughly remodeled and put into complete order for the reception of patients. A perfect system of water-supply, sewerage, plumbing, heating, and electric lighting has been installed, and on February 1, 1896, the Colony was informally opened for patients. One hundred and forty-nine patients have been received thus far, and as soon as the hospital building, now in course of construction, is completed, and the west group of buildings heated, the accommodations of the plant, as it now stands, will be ready for a population of over two hundred epileptics.

In spite of the shortness of the time now elapsed since the opening of the Colony, two very important facts have become evident: (1) that remarkable improvement has taken place in the condition of the patients admitted, and (2) that the economic success of the scheme is assured.

EFFECT OF COLONY-LIFE ON THE PATIENTS.

Nearly every case has gained in weight and in general health. In all cases the epileptic seizures have diminished in frequency to a marked degree, and in some instances this has been even extraordinary. The expression of the inmates has altered, so that instead of the dull, hopeless look of the almshouse epileptic, one sees on all sides happy faces in which intelligence and hope are being reawakened.

The school has been successfully started for fifteen or

[1] Unfortunately, even the Surgeon-General's catalogue has not the full Christian name.

[2] Official report of the Medical Superintendent.

twenty of both sexes. Much of the printing of the colony is now done by two or three epileptics in the colony's own printing-office. Carpentry, sewing, painting, etc., are being carried on by the patients. They have their own epileptic blacksmith. Naturally the great work of the inmates of both sexes is in the field and garden. Eighty-three per cent. of the males and seventy-six per cent. of the females have given us eight hours' daily labor. This labor has had a great effect upon the income of the colony, demonstrating the

ECONOMIC VALUE OF THE SCHEME.

From the report of the superintendent and steward for the year ending September 30, 1896, we learn that the products of the farm and garden for the year 1896 amounted to $14,230.20. The cost of maintainance of patients from the date of opening, February 1, 1896, to October 1, 1896, a period of eight months, was $28,-258.24. The colony has therefore actually produced already one-half of the cost of maintenance.

Appropriations are asked for this year to increase the productivity of the agricultural department especially, because upon this the economic success of the scheme depends so largely.

At the same time there is most urgent need of accommodations for the hundreds of patients seeking admission. There are nearly a thousand patients still a public charge in the almshouses, insane asylums, and various charitable institutions, who need to be provided for at Craig Colony. The managers will ask the Legislature to provide this coming year dormitory accommodations for at least three hundred more patients.

SOCIETY PROCEEDINGS.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting October 6, 1896.

B. ONUF, M.D., read a paper entitled,

A CONTRIBUTION TO THE STUDY OF MOTOR APHASIA,

in which the following case of cortical motor aphasia was reported:

Mrs. S. D——, twenty-three years of age, had an attack of acute articular rheumatism three years ago, during which she probably acquired an endocarditis with valvular lesions of the heart. On June 7th, after a miscarriage, she had an attack of embolism, followed by hemiplegia of the right side, and involving the right arm, and particularly the hand and fingers. She said that the understanding of spoken language was unimpaired, but this statement should be taken with some allowance. He had first seen her on April 3d. At that time there was slight disturbance of motor speech—*i.e.*, slight difficulty in finding the words, and an occasional misuse of words, or an improper construction of sentences. She had difficulty in giving the name of common objects presented to her. Aside from these disturbances, there was marked defect of the faculty of reading and writing, individual letters of the alphabet being frequently mistaken. She found it, as a rule, easier to read the word *in toto*, than to spell it. The word "one," for example, was pronounced correctly, but spelt "won." In the writing, which was done with the left hand, the patient used printed characters, both in copying and writing from dictation. The auditory impressions received from loud reading undoubtedly helped her understanding, and enabled her to read words which she could not do otherwise. There were absolutely no other visual disturbances—no hemianopsis, and no narrowing of the visual fields. Apparently there were no gross lesions of memory.

He also reported the case of a man whose speech had been suddenly affected, so that he spoke very thickly, and could hardly be understood. There was no real aphasia, for he knew what he was going to say, and always succeeded in saying it, but the words were very much blurred. Five days later he died with symptoms of congestion of the lungs. On *post-mortem* examination, a blood-clot was found at the level of the lower part of the ascending frontal and ascending parietal convolutions of the left hemisphere. Almost all the cortical substance of these convolutions had been destroyed, but the third frontal convolution had been left intact.

It was easy to understand the occurrence of motor aphasia with alexia and agraphia, if we supposed that Broca's center was involved. This view found further support in the fact that many cases of motor aphasia with alexia had been reported, in which the aphasia had been almost entirely recovered from, while the alexia had remained. He could not answer, however, the question, why in this and many other cases there was an earlier recovery from aphasia than from alexia. The observations in this case would go to show that most of the words were read as a whole, and not by spelling. It was certainly not possible in the English language, because of the variety of ways in which certain groups of letters are pronounced in different groups. In learning Russian, he had himself begun to read before he had been entirely familiar with the letters of the alphabet. Although to a certain degree he had read the language "spellingwise," he still recognized many words by familiar combination of letters, and by the sense. He believed that the reason his patient used printed characters solely was, that there was a loss of motor-graphic memories. The visual memories for printed signs are usually much better established than those for script, for the reason that reading is chiefly done from printed characters. That muscular sensations play a very important part is shown by the fact that we can write with the eyes shut. If we are warranted in speaking of a motor speech-center, we must be justified in speaking of a physiological apparatus in which muscular graphic memories are stored. Loss of these memories does not imply absolute impossibility to write, as visual memories may supply the deficiency. It is not supposed that the lesion may just destroy the motor-graphic memories and leave intact the other motor faculties connected with the hand- and finger-muscles. A patient with a lesion of Broca's center can understand what is said to him, but he has lost the power of inwardly repeating what has been said. The motor speech-center forms such an important factor in the evolution of the higher mental

processes, that its lesion cannot remain without damaging influence on the mental activity.

DR. JOSEPH COLLINS could not agree with Dr. Onuf that a person having pure motor aphasia, was completely unable to read. He had one patient who was completely aphasic, yet he could write prolifically, and was able to read understandingly both his own writings and those of others. He certainly both read and understood these writings. Hence, the speaker said he could not believe that with pure and complete motor aphasia there is necessarily alexia. He did not think there was any objection to subdividing the motor speech-center into an articulo-motor center, and placing adjacent to it the centers for phonation, labial movements, and buccal movements.

DR. B. SACHS had recently observed a case in which aphasia was the sole symptom of a cortical tumor. The manner in which it progressed would seem to justify fully the subdivision of the motor speech-center, and also to show that speech is not the function of any one center, or any series of centers, but that it is really the result of a very close union of these centers by distinct association-tracts. If this were not so, a relatively small lesion could not explain the variety of symptoms observed in the case which he reported. The patient was a lady who had been carefully observed by her brother, who was a physician. The first thing noticed was an apparent slight apathy, but this was really due to a difficulty in speech. When first seen by Dr. Sachs, about three months after this, it was found that she had lost the faculty of using nouns, so that she could not give the names of those persons best known to her. After a time the difficulty of speech became more distinct; there was great difficulty in finding words. Toward the end only was there a distinct deficiency in the understanding of language. From the very first her brother had noticed a distinct difficulty in reading, and a still greater difficulty in writing. He had never seen a patient able to speak so much and yet unable to name or even copy single letters. She could, however, write a *whole* name fairly well. Such a case seemed to show the necessity for a further subdivision of the motor-area. The paper of the evening was of value as a corroboration of Bianchi's views. It showed that we were gradually turning to larger divisions rather than to the small localization-areas, which we employed as a result of the teachings of Ferrier.

DR. ONUF, in closing the discussion, said that he distinguished two forms of aphasia—cortical and subcortical motor aphasia. The latter was also called pure motor aphasia. In cortical motor aphasia, it was assumed that the cortex, where psycho-motor images of speech are deposited, is affected. Subcortical aphasia is one in which there is an impossibility of loud speech, but internal language remains intact; hence, such persons can read and write perfectly. He believed the cases referred to by Dr. Collins were examples of subcortical motor aphasia.

G. W. JACOBY, M.D., read a paper on

THE COMMITMENT OF PATIENTS AND THE NEW INSANITY LAW.

Under the name of the insanity law there went into effect a new law in July of this year. In his opinion, the framers of the law had totally failed to unite the postulates of jurisprudence with those of medicine—indeed it would seem that they had intentionally ignored, as far as possible, the medical side of the subject. The medical certificate no longer serves for the temporary detention of the patient for five days. The responsibility for the commitment has been removed from the shoulders of the physicians to those of the judge, and a matter which is essentially medical has been transformed into one chiefly legal. This law also provides that at least one day before the physician presents his application to the judge, the patient is to be informed of the proceedings. This personal service can be omitted under certain circumstances, according to the discretion of the judge. After all the necessary legal preliminaries have been taken, the superintendent of the institution to which the patient is committed, may refuse to accept the patient on the ground that he does not consider the person insane, or that the papers are not made out properly. There is also a provision for an appeal from the decision of the judge and a trial by jury. The old law was much better, particularly on account of its provisions for temporary detention. The provision which takes away every method of procedure except appeal, when the application is refused, is a particularly objectionable feature. Personally, he would not be satisfied with an insanity law which would not allow of the temporary commitment of the person on the strength of medical certificates by two qualified physicians, one of whom should have special psychiatric qualifications.

DR. CARLOS F. MACDONALD said that he wished at the outset to disclaim any responsibility for the framing of the new law. It had its origin with a member of the Statutory Committee of Revision. He was the only physician in this State who had opposed the bill before the legislature. During the past seven years, as commisioner in lunacy, he had examined thousands of cases of alleged illegal commitment, and he had yet to learn of a single case of a sane person being committed through corrupt collusion and through intent, although he had occasionally known of instances of mistaken diagnosis, such as might occur in connection with any disease. He thought that, as a rule, judges would waive the notice of personal service upon the patient or friend, and it seemed to him a distinct advantage to make the commitment a judicial order, rather than a judicial approval, as in this way it relieved the medical profession of much responsibility and the danger of suits for damages. In his judgment, the weakest point was the absence of any provision for temporary detention. A determined effort should be made this winter by the medical profession to amend the law in that respect. Curiously enough, the laity consider themselves fully as qualified as physicians to diagnosticate insanity, and this new law is an outgrowth of that feeling.

DR. C. L. DANA said that his views were entirely in harmony with those of the reader of the paper, and the Society should make it clear that it appreciated the absurdities and many faults of the new law. It had caused an infinite amount of trouble to the city physicians, and the ordinary process of commitment had, in consequence,

become tedious and expensive—so much so that physicians had found it advisable to commit insane persons, as far as possible, to institutions outside of this State.

DR. HAMMOND then offered the following resolution, which was unanimously adopted:

RESOLVED, That the President appoint a committee of five to report to the Society such measures as it may deem expedient for securing the amendment of the present lunacy law, governing the commitment of the insane.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, September 9, 1896.

G. BETTON MASSEY, M.D., read a paper entitled

ELECTRICITY IN GYNECOLOGY AT THE HOWARD HOSPITAL.

The cases submitted to treatment were strictly gynecologic, the majority presenting evidences of chronic inflammation, exudation or hypertrophy of the pelvic organs, neoplasms, pathologic displacements or disturbed innervation, including certain neuroses with pelvic manifestations, and post-operative painful affections. Thirty cases of fibroid tumors of the uterus were treated. In one case a submucous tumor was expelled from the uterus by contractions induced by the electric current. Three tumors disappeared almost entirely by absorption. In eight cases there were symptomatic cure and great reduction in size. In eight other cases there were symptomatic cure and slight reduction in size. In two cases symptomatic cure resulted, without reduction in size. Four cases were yet under treatment, with a favorable outlook. Three cases failed to continue the treatment for a sufficiently long period. In only one case was there no improvement. No bad results attended the treatment, and practically no discomfort attended or followed the applications. Suppuration in the neighborhood of the tumor and cystic degeneration of the tumor contraindicate the local employment of electricity. Cystic degeneration is recognizable by palpation and suppuration, by the failure of the applications of the faradic current to relieve temporarily the pain and the aggravation of the pain by intra-uterine applications of galvanism. Of sixteen cases of chronic metritis, thirteen were cured, two improved, and one not improved. Of fourteen cases of perimetric inflammation, six were cured, six improved, and two not improved. Of four cases of chronic ovaritis, two were cured, and two improved. Of eight cases of post-operative pain and neuroses, one was entirely relieved, three improved, and four remained unimproved. One case of incipient, but undoubted, carcinoma of the breast was cured and has remained well. Two cases of carcinoma of the cervix were temporarily improved, while one remained unimproved. Other affections treated were: Subinvolution, 7 cases, all cured; menorrhalgia, 5 cases—4 cured, 1 improved; endometritis, 4 cases—3 cured, 1 improved; retroflexion, 2 cases—both improved; retroversion, 2 cases—1 cured, 1 improved; pyosalpinx, 2 cases—1 cured, 1 became worse; hydrosalpinx, 1 case—cured; ectopic gestation, 1 case—cured; prolapse, 1 case—improved; urethral caruncle, 1 case—cured; pruritus, 1 case—cured.

In reply to questions propounded in the discussion, Dr. Massey added that tuberculosis of the genitalia is a contraindication to the total employment of electricity; and that the cure in the case of ectopic pregnancy consisted in arresting the life of the fetus, followed by shrinking of the tumor, after rupture into the broad ligament.

JOHN LINDSAY, M.D., reported

A CASE OF PROSTATIC ABSCESS,

occurring without obvious cause in a married man, twenty-nine years old, a waiter. The patient was seized with chilliness and a feeling of soreness in the joints and muscles, together with general debility. The temperature was 101° F., and the tongue was coated. The case was treated as one of influenza, but improvement did not take place. The patient remarking casually that he had piles, rectal examination was made and disclosed general enlargement of the prostrate gland, together with local heat. The patient denied ever having suffered from urethritis, and there was no history of traumatism of any kind; and the only assignable cause was walking long distances. Hip-baths, quinin, magnesium citrate, and rest in bed were prescribed. A rigor, together with general restlessness, difficulty, and pain in micturition, was followed by the discharge of about an ounce and a half of pus from the urethra, with relief from the previous symptoms. The patient was directed to take fifteen grains of boric acid thrice daily, but he failed to report again and the further progress of the case could not be followed, although it was learned that he returned to his work.

DR. MASSEY suggested that the abscess may have involved one of the seminal vesicles.

DR. JOHN B. ROBERTS also reported a case of prostatic abscess presenting symptoms of influenza. In this case rupture took place into both urethra and rectum, and there was also an abscess of the scrotum.

Stated Meeting, September 23, 1896.

E. E. MONTGOMERY, M.D., read a paper entitled

TREATMENT OF RETRO-DISPLACEMENT OF THE UTERUS,

in which he summarized his views upon this subject as follows: In the treatment of retro-displacements of the uterus the displacement itself is generally not of so much significance as the accompanying complication, and no procedure that does not take cognizance of the latter will prove a satisfactory method of treatment. The proper treatment for the varying conditions may be briefly outlined as follows: In recent cases, in which the uterus is freely movable, the medicated tampon or pessary is the preferable measure. In many cases the former will be required as a preparation for the latter. In recent cases, in which there exists a plastic exudate, together with adhesions (and pus-tubes can be excluded), massage, supplemented by the medicated tampon, and restoration of the mobility of the uterus, are indicated, followed by the use of the pessary. In chronic cases, in which the uterus is movable, curettement, followed by suture of the round

ligaments in front of the uterus through an anterior colporrhaphy, is the best plan. When the displacement is complicated by disease of an ovary or tube, curettement, followed by abdominal incision, with treatment of the diseased appendage and fixation of the uterus to the abdominal wall, is the course to be pursued. When there exist adhesions, without serious tubal or ovarian disease, curettement and shortening of the utero-sacral ligaments, after separation of the adhesions through the posterior vaginal incision, will be the measures indicated.

DR. G. E. SHOEMAKER said that in the treatment of retroversion of the uterus great care must be exercised to determine whether or not the condition is the cause of the symptoms present. In many cases these are due to secondary displacement of the ovary, to relaxation of the broad ligaments, with resulting venous congestion, and edema, and impaired circulation of uterus and ovaries. Failure to correct these secondary conditions will result in persistence of the symptoms. The pessary is at best but a temporizing expedient, and is without use in the presence of adhesions. It is, however, useful in a small number of comparatively acute cases as a temporary device to support the uterus until involution can take place. To effect permanent relief, both the pessary and such an operation as shortening of the round ligaments are useless when adhesions are present. Under these circumstances an abdominal operation becomes necessary, and the best is ventrofixation of the uterus. The difficulties that have been noted in the sequence of this procedure can be largely obviated by placing the uterine sutures in advance of the line of the tubes instead of behind that line. Vaginal operations are usually not advisable.

DR. J. M. BALDY maintained that retro-displacements attended with suffering are almost always complicated, and complications of any kind contraindicate the use of the pessary. Many cases of retro-displacement are free from all symptoms, and require no gynecologic treatment whatever. The pessary is probably responsible for pelvic suppuration in some cases. In Dr. Baldy's opinion massage of the uterus is only a refinement of masturbation, and without utility, except when a large amount of lymph has been thrown out into the pelvis. For the complications that attend retro-displacements one of two operations is indicated—hysterorrhaphy, or shortening of the round ligaments. Other abdominal operations are not to be recommended, and vaginal operations are dangerous. Dr. Baldy preferred hysterorrhaphy to shortening of the round ligaments. Both have, however, only a limited field of application.

DR. J. M. FISHER pointed out that when a retro-displacement of the uterus is recognized, inquiry should at once be made for the cause. The majority of such displacements are to be traced to the puerperal state, and are attributable to lacerations of the pelvic floor, distention of the bladder, and of the rectum, the protracted use of a binder, and septic processes. When, with a movable uterus, a retro-displacement exists during pregnancy, or when such a displacement occurs shortly after labor during the process of involution, a pessary may prove useful.

DR. W. E. ASHTON divided retro-displacements into acute, chronic, and complicated. In recent and uncomplicated cases the pessary is the only form of treatment available. An uncomplicated case in which relief does not soon follow the use of a pessary becomes a chronic case. If symptoms are absent no treatment is required. Otherwise, surgical intervention becomes necessary. Under these conditions ventrofixation of the uterus, properly performed, is the preferable procedure. In complicated cases the complicating condition must first receive appropriate treatment. When adhesions are present these must first be broken up; when ovaries or tubes are diseased they must first be extirpated. Under these conditions the best treatment is supravaginal hysterectomy.

DR. MASSEY contended that the initial trouble in all cases of retro-displacement is an inflammatory condition of the uterus, and the best treatment for this consists in a stimulation of the metabolic activities of the tissues by means of intrapelvic applications of electricity.

DR. G. G. DAVIS said that the pathology of retro-displacements is to be found in alterations in the pelvic floor, such as attend labor.

DR. W. S. STEWART attributed to the prevailing mode of dress the principal influence in the causation of retro-displacements of the uterus, resulting in depression of the waist, and compression and displacement of the abdominal viscera.

In conclusion, Dr. Montgomery added that the pessary is of especial utility in the relief of recent retro-displacements, *e. g.*, following parturition. The uterus does not rest upon the posterior bar of the pessary. The uterus must be restored to its normal position before the pessary is introduced. The operation of shortening the round ligaments is only available when the uterus is freely movable, and can readily be replaced and maintained in its proper position. If, in performing ventrofixation, union is established between a small portion of the uterus and the anterior abdominal wall, this band will elongate and permit of movement on the part of the uterus, with less danger of complications. In operating, Dr. Montgomery introduces one suture about the center of the fundus in the transverse line, and another just behind this. The operation of shortening the round ligaments is not applicable to all cases of retro-displacement on account of the degenerative changes in the ligaments, when the condition has existed for a long time.

DR. JOHN M. FISHER exhibited a specimen of multiple fibroids of the uterus, removed from a patient fifty-two years old. There had long been present symptoms of pelvic disease, and the patient had passed a considerable period of invalidism. Complicating the uterine condition was a cyst within the folds of the broad ligament on the left side, which, upon superficial observation, resembled the bladder. The uterine appendages on both sides were also diseased. The progress of the case following the operation was satisfactory.

Stated Meeting, October 14, 1896.

F. W. TALLEY, M.D., read a paper entitled

THE PROPER POSITION OF CELIOHYSTEROPEXY IN GYNECOLOGY.

He cited the objections that had been raised to the

operation, and pointed out that the dragging pains that had been observed to follow in some cases could be attributed to drawing the uterus too high in the pelvis. That the operation predisposes to abortion is an objection aimed at the method employed, and not at the operation itself. If the uterus be attached to the abdominal wall by unyielding buried sutures, or by a broad, firm band of adhesion, it will not enlarge uniformly in accordance with the demands of the developing ovum, and the uterine contents may be expelled, though this does not occur often. If, however, the uterus be so attached as to be still capable of a considerable range of movement, this danger will be minimized. That labor is likely to be complicated, and that Cesarean section should have been a necessary resort in a few cases, is again a fault of the method employed. With the uterus lightly supported and free to move, a serious result could not be anticipated. The operation that has yielded Dr. Talley the best results in parous women consists in a small median incision, under septic precautions, separation of the uterus and appendages from adhesions, elevation of the fundus, determination of the point above the pubic symphysis, to which the uterus may be raised without undue tension upon its ligaments and its suture with two stitches. Boiled silkworm-gut is preferred for sutures, the first strand being passed through the entire thickness of the abdominal wall at the point selected, through the fundus of the uterus in a line midway between the two tubal attachments, embracing about half an inch of the uterine tissue, and through the abdominal wall on the opposite side. The second suture is introduced similarly one-quarter of an inch behind the first on the posterior aspect of the fundus. These stitches are tied tightly, and the remaining wound in the abdomen is closed in the usual manner. The stitches in the abdominal wound are removed in eight days, while those holding the uterus are permitted to remain until the sixteenth day. The patient is preferably kept in bed for three weeks. Celiohysteropexy is indicated whenever a uterus that is displaced posteriorly and is adherent cannot be restored to its normal position by non-operative measures, and symptoms of the following kind are present: Disordered and painful menstruation; backache; bearing-down pain; obstinate headache; loss of appetite; difficulty and pain in defecation, and various general reflex nervous symptoms that cannot be relieved by persistent local treatment. For the relief of prolapse of the uturus in parous women celiohysteropexy is an important adjunct to the plastic operations for the narrowing of the vagina.

DR. CHAS. P. NOBLE said that in his own experience he had not observed dragging pains in the sequence of celiohysteropexy, nor in a study of some 800 cases operated on by American surgeons had this symptom been noted. In these cases, and also in some 600 from foreign sources, there was no evidence that the operation predisposed to abortion. The pessary has a useful place in the treatment of retro-displacements in recent and puerperal cases. When operation is required Dr. Noble prefers that of shortening the round ligaments.

DR. MONTGOMERY suggested that the method of operation described would result in too firm or too light union of the uterus with the abdominal wall. In view of the possibility of difficulty during gestation and parturition, it would perhaps be a better plan of procedure to fasten the round ligaments to the anterior surface of the uterus.

DR. JOHN C. DA COSTA said that the patients who complained of pain following the operation were either hysterical or neurasthenic. The introduction of through-and-through silkworm-gut sutures in the abdominal wall, and their retention for sixteen days, will be attended with danger of dystocia.

DR. J. CHESTON MORRIS stated that he had relieved retroflexions almost without exception by means of the intra-uterine stem-pessary. When a stimulating effect is required a galvanic pessary made of zinc and copper will often yield excellent results.

A. O. J. KELLY, M.D., read a paper entitled

ESSENTIAL PAROXYSMAL TACHYCARDIA, WITH THE REPORT OF FOUR CASES.

The opinion was expressed that the seizures are attributable to transitory disturbance of the functional activity of the vagus—most probably of the centers in the medulla. When the heart-beat is less frequent there may be irritation of the sympathetic. In some cases both sets of phenomena are perhaps present. The affection may thus be looked upon as a neurosis, the manifestations of which may be referred to functional failure of the neuron in consequence of nutritional or allied disturbance. The prognosis is uncertain, and the treatment symptomatic. Thus, relief may be afforded by pressure on, or by electric stimulation of, the vagus in the neck, by pressure upon an ovary, by the drinking of cold water or of hot coffee, or by deep inspiration and the retention of the air in the lungs. Of aid are the application of an ice-bag to the chest, the swallowing of cracked ice, and a cold douche upon the chest, abdomen, or neck.

DR. A. A. ESHNER said that in a considerable number of cases of vaso-motor ataxia in which he had examined the urine, he had found red corpuscles in varying numbers. This occurrence may be attributed to the escape of the cells through the capillaries of the kidneys, relaxed as a result of diminished vascular tone.

DR. S. SOLIS-COHEN was unwilling to agree with any nosologic scheme that would sharply separate cases like those reported from all other cases of cardiac and vaso-motor disturbance. When there exists a large group of pathologic phenomena, comprising cases that shade into one another imperceptibly, it would be a philosophic blunder to draw a sharp line at any one point arbitrarily chosen, saying that cases on this side belong to one group, and cases on that side to another. Tachycardia is thus to be looked upon not as a disease but as a symptom. In considering the adaptation of the theory of the motility of the neuron to the explanation of the phenomena of essential tachycardia, the question arises, why is the contact of the arborescent extremities of the neuron interfered with? It may be assumed that the paroxysm is a toxic manifestation, the toxins being many in number and various in character. These interfering with the functions of the

neuron, the other conditions may occur. To go a step further, it may be assumed that a fundamental fault exists in the physical, chemic, or vital constitution of the nervous centers of visceral life, a failure of development that may be congenital, indeed hereditary; or a similarly faulty constitution acquired as the result of various depressing influences, perhaps infectious disease.

DR. WHARTON SINKLER said that the occurrence of tachycardia in cases of neurasthenia is so common that it is natural to associate the conditions productive of the one condition with those that lead up to the other. The theory of the motility of the neuron, while attractive, is not supported upon any firm foundation, and is purely speculative. Essential tachycardia is probably a disorder of nutrition, as in the cases of neurasthenia in which it is present, it disappears with the primary condition as the state of the nutrition improves.

DR. J. P. C. GRIFFITH disapproved of the employment of the qualification "essential," as a cause must exist, although it escapes observation. The condition is thus equally symptomatic with others in which the cause is more obvious. Dr. Griffith referred to the tachycardia of the menopause, which is often observed in conjunction with other disturbance.

DR. J. C. WILSON referred to two cases of essential tachycardia recently under his observation, one in a man who had endured great hardships in consequence of shipwreck, the other in an elderly lady following anxiety attending the illness of a child, and in addition some pecuniary loss. In both occurred long intervals of relief from symptoms, with recurring paroxysms of great suddenness, and usually without immediate obvious cause. Dr. Wilson coincided in the view that even essential tachycardia must be considered symptomatic.

DR. THOS. J. MAYS expressed the conviction that in some cases of tachycardia organic changes in some part of the nervous system are present. He concurred in the view that in many cases the accelerator nerves are concerned, while the vagus or the medulla oblongata is principally involved. Dr. Mays has found paroxysmal tachycardia associated with angina pectoris and with lead-poisoning. Other metallic poisonings, as well as alcoholism and syphilis, may also act as causes. It was thought that the disorder may be allied to epilepsy and asthma. In treatment, no one remedy or plan is successful. Applications of ice to the neck have been useful in some cases. Most are benefited by strychnin, in conjunction with general supporting treatment.

DR. KELLY, in conclusion, maintained that according to the definition given, there are in addition to cases of symptomatic or reflex tachycardia others that may be properly designated "essential." In many the ultimate etiology is toxic in character; in a number the disturbance is nutritional. The best treatment is practically symptomatic.

CHAS. W. BURR, M.D., read a paper on

THE RELATION OF ANEMIA TO CHOREA.

He reported the results of a study of the number of red blood-corpuscles and of the hemoglobin-estimation in thirty-six cases of chorea. The hemoglobin and the corpuscles were found at the theoretic normal in only two cases. In none was there extreme anemia. In the most aggravated case, the hemoglobin-estimation was forty-five per cent., and the number of red corpuscles 3,450,000. The attack of chorea was mild, but a serious cardiac complication existed. In another case, complicated by epilepsy, the hemoglobin-estimation was sixty per cent., and the number of red corpuscles 3,600,000. In one very aggravated uncomplicated case, the hemoglobin-estimation was sixty-five per cent., and the number of red corpuscles 4,800,000, and in another the hemoglobin-estimation was sixty per cent., and the number of corpuscles 3,850,000. These were the most anemic cases. In twenty-four the hemoglobin-estimation reached eighty per cent. or more, and the number of corpuscles 4,000,000 or more. In twenty-nine the hemoglobin-estimation reached seventy-five per cent. or more. The conclusion was expressed that the blood is rarely absolutely normal during an attack of chorea. There is usually a diminution in the hemoglobin-valuation, and a relatively smaller diminution in the number of red corpuscles. The anemia is therefore chlorotic in type. There is no relation between the severity of the attack and the intensity of the anemia. When the anemia is profound there is usually some complication capable of inducing such a condition. The belief was expressed that anemia is not an immediate, direct, exciting cause of chorea, but infrequently even a predisposing cause. In the large majority of cases the condition of the blood is secondary to the chorea. In the rare cases of chorea that seem to result from mycotic infection, the anemia may be of toxic origin.

DR. SINKLER stated that in the larger number of cases of chorea that come under his observation, anemia is not present. A study of the blood in a considerable number showed generally high valuations for corpuscles and hemoglobin.

DR. ALFRED STENGEL related that in his experience anemia is not a frequent complication of chorea. Although many patients are pallid, examination of the blood fails to disclose any considerable degree of depreciation. It is doubtful if there is even a quantitative anemia. Such deficiency as exists may be attributed to the toxic condition secondary to the infection on which chorea may be supposed to depend. In some cases a moderate degree of leucocytosis has been found. Examinations of the blood in dispensary patients are likely to be fallacious, owing to emotional and vaso-motor disturbance.

DR. JAS. TYSON pointed out the entire compatibility of pallor with a normal composition of the blood as manifested in attacks of syncope.

DR. SINKLER raised a question as to the liability of personal error in counting the number of blood-corpuscles and estimating the hemoglobin-valuation.

DR. STENGEL replied that the liability to error diminishes with the skill of the observer. The variations among novices may be very considerable.

DR. BURR, in conclusion, suggested the possibility that many of the cardiac murmurs heard in cases of chorea and attributed to the state of anemia apparently present, may be due to actual disease of the endocardium.

REVIEWS.

A SYSTEM OF SURGERY. In Contributions by Twenty-five English Authors. Edited by FREDERICK TREVES, F.R.C.S., Surgeon to and Lecturer on Surgery at the London Hospital; Examiner in Surgery at the University of Cambridge. Volume II. In one octavo volume of 1120 pages, with two colored plates and 487 illustrations. Lea Brothers & Co., Philadelphia and New York.

WE have here the second and concluding installment of a valuable contribution to surgical literature, the work of men of acknowledged authority as representatives of the profession in Great Britain. This volume is devoted almost entirely to the discussion of the diseases and injuries affecting the various regions of the body.

The opening article is by Mr. Arbuthnot Lane, on the injuries and diseases of muscles and tendons. It is followed by a chapter on the surgery of deformities, by Mr. H. H. Clutton. Mr. Henry Percy Dean contributes two articles, one on injuries of the head, and the other on the diseases affecting that region. Dr. W. H. Bennett discusses first the injuries and then the diseases of the spine; the former paper being supplemented by a brief essay from the pen of Mr. H. W. Page on concussion of the spine, with special reference to that form of traumatic neurosis to which the term "railway spine" has been applied. Next come chapters on the diseases and injuries of the ear and of the nose, by Mr. A. Marmaduke Sheilds; on the injuries and diseases of the neck, by Mr. Bernard Pitts, and on the surgery of the chest, by Mr. A. Pearce Gould. Affections of the mouth, palate, tongue, tonsil, and pharnyx, are discussed by Mr. H. F. Waterhouse, and a separate chapter of ten pages, written by Mr. W. Bruce Clark, is assigned to the troubles which are met with in the esophagus. Next comes an article by the editor, Mr. Treves, on the injuries and diseases of the abdomen. We trust we shall not be regarded as hypercritical, but it seems to us that it would be more accurate to say "of the abdominal organs." Mr. Treves has himself dealt also with the subject of hernia. Dr. Charles B. Ball gives a chapter on diseases of the rectum, and Mr. W. Watson Cheyne follows with one on diseases of the breast. A chapter on the injuries and diseases of the urinary organs, and another on those of the testes, scrotum, and penis, have been contributed by Mr. Henry Morris, and the volume concludes with a discussion of the injuries and diseases of the female genital organs, by Mr. J. Bland Sutton.

In our review of the first volume of this work we referred to the editor's statement in his preface that it was not his intention to dwell upon the details of surgical procedures. As might be expected, this abstinence is more noticed in the portion devoted to regional surgery, and perhaps the scope of the work would have been more correctly indicated had the title been "The Principles of Surgery." The doctrines held by the conservative school of British surgeons are clearly and concisely set forth. One feels that the authors are expressing opinions of their own, and not such as have been manufactured abroad. Had space permitted, we should gladly have entered upon an analysis of some of the views contained in these pregnant chapters.

The mechanical execution of these volumes is highly creditable. The illustrations vary in artistic merit, but they are all adapted for their main purpose in the elucidation of the text.

OBSTETRIC ACCIDENTS, EMERGENCIES AND OPERATIONS. By L. CH. BOISLINIÈRE, M.A., M.D., LL.D. Late Emeritus Professor of Obstetrics to the St. Louis Medical College, Etc. Philadelphia: W. B. Saunders. Pp. 381.

THE author announces in the preface that this volume is intended "for the use of the practitioner who, when away from home, has not the opportunity of consulting a library, or of calling in a friend in consultation." The matter is newly written, but includes little that has not been repeatedly said in the treatises on midwifery and the manuals of obstetrics, which the author frankly says his book is not intended to replace, and which should be at the working service of every obstetrician at home or abroad. The man who knows only what is herein taught would be an unsafe attendant in the lying-in chamber. The illustrations constitute the best feature of the work, but they are already familiar to readers of "The American Text-Book of Obstetrics," and are often at variance with the text, notably in the chapter on forceps.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM OCTOBER 13, 1896, TO OCTOBER 19, 1896.

Captain Wm. H. Gray, Assistant Surgeon, to be Surgeon, with rank of Major, October 10, 1896, vice Gardner, promoted.

Captain Benjamin Munday, Assistant Surgeon, will in addition to his present duties at Fort Wayne, Mich., examine recruits enlisted at Detroit, Mich., and will furnish medical attendance at the recruiting station in that city.

Colonel Francis L. Town, Assistant Surgeon-General, is at his own request, having served over thirty years, retired from active service this date, October 10, 1896.

Captain N. S. Jarvis, Assistant Surgeon, U. S. Army, granted six months leave of absence with permission to go beyond sea.

Captain Jefferson D. Poindexter, Assistant Surgeon, will be relieved from duty at Fort Riley, Kas., and will report in person to the commanding officer, Willets Point, N. Y., for duty at that post.

Captain William P. Kendall, Assistant Surgeon, U. S. Army, is relieved from duty at Fort Sam Houston, Tex., and ordered to Fort Brown, Tex., for duty at that post, to relieve Major Peter J. A. Cleary, Surgeon, U. S. Army.

Major Peter J. A. Cleary, Surgeon, upon being relieved from duty at Fort Brown, Tex., by Captain Kendall, Assistant Surgeon, will report in person to the commanding general, Department of Texas, for duty as Chief Surgeon of that Department.

Major Henry McElderry, Surgeon, is relieved from duty at Fort Robinson, Neb., at expiration of his present leave of absence, and is ordered to Fort Leavenworth, Kas., for duty at that station, to relieve Major Calvin De Witt, Surgeon, U. S. Army.

Major Calvin De Witt, Surgeon, upon being relieved from duty at Fort Leavenworth, Kas., is ordered to Fort Monroe, Va., for duty at that station, to relieve Major Edward B. Moseley, Surgeon, U. S. Army.